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Ser Ser Val Ile His Leu Lys Pro Glu Glu Glu Asn Tyr Arg Glu Glu		95
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Gly Asp Pro Arg Thr Arg Ala Ser Asp Pro Gln Ser Pro Pro Gln Val		110
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Ser Arg His Lys Ser His Tyr Arg Asn Arg Glu His Phe Ala Thr Ile		125
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Arg Thr Ala Ser Leu Val Thr Arg Gln Met Gln Glu His Glu Gln Asp		140
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Ser Glu Leu Arg Glu Gln Met Ser Gly Tyr Lys Arg Met Arg Arg Gln		160
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His Gln Lys Gln Leu Met Thr Leu Glu Asn Lys Leu Lys Ala Glu Met		175
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Asp Glu His Arg Leu Arg Leu Asp Lys Asp Leu Glu Thr Gln Arg Asn		190
	195	200
Asn Phe Ala Ala Glu Met Glu Lys Leu Ile Lys Lys His Gln Ala Ala		205
210	215	220
Met Glu Lys Glu Ala Lys Val Met Ser Asn Glu Glu Lys Lys Phe Gln		225
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<210> 4305

<211> 3400

<212> DNA

<213> Homo sapiens

<400> 4305

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<210> 4306

<211> 1052

<212> PRT

<213> Homo sapiens

<400> 4306

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Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
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Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
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Ile	Glu	Ala	Leu	Asn	Leu	Gly	Asn	Asn	Gly	Leu	Glu	Glu	Val	Pro	Glu

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Gly	Leu	Gly	Ser	Ala	Leu	Gly	Ser	Leu	Arg	Val	Leu	Val	Leu	Arg
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Asn	Arg	Phe	Ala	Arg	Leu	Pro	Pro	Ala	Val	Ala	Glu	Leu	Gly	His
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Leu	Thr	Glu	Leu	Asp	Val	Ser	His	Asn	Arg	Leu	Thr	Ala	Leu	Gly
		115					120					125		Ala
Glu	Val	Val	Ser	Ala	Leu	Arg	Glu	Leu	Arg	Lys	Leu	Asn	Leu	Ser
	130					135				140				His
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			165					170					175	Ser
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		340				345						350		Asn
Gln	Ile	Ala	Val	Leu	Pro	Asp	His	Phe	Gly	Gln	Leu	Ser	Arg	Val
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Leu	Trp	Lys	Ile	Lys	Asp	Asn	Pro	Leu	Ile	Gln	Pro	Pro	Tyr	Glu
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Cys	Met	Lys	Gly	Ile	Pro	Tyr	Ile	Ala	Ala	Tyr	Gln	Lys	Glu	Leu
385				390					395					Ala
His	Ser	Gln	Pro	Ala	Val	Gln	Pro	Arg	Leu	Lys	Leu	Leu	Leu	Met
		405						410					415	Gly
His	Lys	Ala	Ala	Gly	Lys	Thr	Leu	Leu	Arg	His	Cys	Leu	Thr	Glu
		420					425					430		Glu
Arg	Val	Glu	Gly	Cys	Pro	Gly	Gly	Gly	Asp	Lys	Glu	Lys	Cys	Tyr
		435				440						445		Pro
Pro	Ser	Pro	Pro	Pro	Val	Ser	Lys	Gly	Ile	Glu	Val	Thr	Ser	Trp
	450				455					460				Thr
Ala	Asp	Ala	Ser	Arg	Gly	Leu	Arg	Phe	Ile	Val	Tyr	Asp	Leu	Ala
465				470					475					Gly
Asp	Glu	Ser	Tyr	Glu	Val	Ile	Gln	Pro	Phe	Phe	Leu	Ser	Pro	Gly
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Leu	Tyr	Val	Leu	Val	Val	Asn	Leu	Ala	Thr	Tyr	Glu	Pro	Arg	His
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          965          970          975
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser
          980          985          990
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro
          995          1000          1005
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val
          1010          1015          1020
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys
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Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln
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<210> 4307
 <211> 947
 <212> DNA
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<210> 4308
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 <212> PRT
 <213> Homo sapiens

<400> 4308
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 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
 100 105 110
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
 115 120 125
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
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<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

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B2

WO 00/58473

PCT/US00/08621

<211> 599
<212> PRT
<213> Homo sapiens

<400> 4310

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Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
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Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
      100          105          110
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Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
      130          135          140
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Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
      260          265          270
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Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Tyr Leu
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Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
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Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
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          515          520          525
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545          550          555          560
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<211> 432
<212> DNA
<213> Homo sapiens

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<210> 4312
<211> 144
<212> PRT

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<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
 1           5           10           15
His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
      20           25           30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
      35           40           45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
      50           55           60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
      65           70           75           80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
      85           90           95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
      100          105          110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
      115          120          125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
      130          135          140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcaccccaac tctatgcctt acccctccca acccaacagc
240
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420
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600
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atggccctgt ggtccctaga gcacccctca tgctgtaggg tctgcagcc ccacctttc
720
tctactgggc cctggatatc tggtcctct ctcagctctg ccactgatct ctgtgcctta
780

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gtttacttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccaggtgat
840
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900
caccaggctg ctcagaatga ggtgactgcg ggcaac
936

<210> 4314
<211> 110
<212> PRT
<213> Homo sapiens

<400> 4314
Met Ser Ser Leu Leu Leu Pro Ser Gln Ser Cys Asp Pro Val Met Ser
1 5 10 15
Thr Arg Met Ala Leu Trp Ser Leu Glu His Pro Ser Cys Cys Arg Val
20 25 30
Leu Gln Pro His Pro Phe Ser Thr Gly Pro Trp Tyr Pro Gly Ser Ser
35 40 45
Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
50 55 60
Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
65 70 75 80
Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
85 90 95
Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn
100 105 110

<210> 4315
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4315
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120
cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcactctacc atccaagcca
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ccgtcaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccgcc
240
aagccatggt cacctaccca ccaagtcatt gtcgcctacc atccaaggag caggcctgga
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573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
 Xaa Leu Ile Gln Tyr Asp Trp Cys Pro Tyr Lys Lys Arg Lys Leu Gly
 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tccccatgccg aaaacataact ccagatatatt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca tttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc
 180
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg
 240
 gttgagatca atggtatatt agctgaagct atggaatgtt ttttgagta tgtttatact
 300
 ggaaaggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt
 360
 cagattagtg ttctccgtga tgcattgtgcc aagttcttgg aggagcaact tgatccttgt
 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

cttgacaaag atgaacttat tgattatatt tgtagtgatg aacttggtat tggtaaagag
 600
 gagatgggtt ttgaagccgt catgcgttgg gtctatcgtg ccgttgatct gagaagacca
 660
 ctgttacacg agctcctgac acatgtgaga ctccctctgt tgcacccaa ctactttgtt
 720
 caaacagttg aagtggacca attg
 744

<210> 4318
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 4318
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 Ile Leu Gln Ile Phe Asn Glu Phe Arg Asp Ser Arg Leu Phe Thr Asp
 20 25 30
 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val
 35 40 45
 Leu Ser Ala Cys Ser Ser Tyr Phe Arg Ala Met Phe Cys Asn Asp His
 50 55 60
 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu
 65 70 75 80
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile
 85 90 95
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln
 100 105 110
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu
 115 120 125
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser
 130 135 140
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe
 145 150 155 160
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu
 165 170 175
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu
 180 185 190
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu
 195 200 205
 Arg Arg Pro Leu Leu His Glu Leu Leu Thr His Val Arg Leu Pro Leu
 210 215 220
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu
 225 230 235

<210> 4319
 <211> 388
 <212> DNA
 <213> Homo sapiens

<400> 4319
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ccaggccgta gccacagcaa ggaccgaacc ctgggaaaac cagacagcct tttagtgcct
 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttggcc acaaagaaaa acctagacca tgtcaataaa
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 atcttaaaag ccaaaaaact tcaaaggcag gccaggacag ggaataactt tgtgaaacgt
 360
 aggccaggtc gaccgcggtc ggagagag
 388

<210> 4320
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 4320
 Xaa Met Glu Lys Ser Ile Asp Ala Val Ile Ala Thr Ala Ser Ala Pro
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 Pro Ser Ser Ser Pro Gly Arg Ser His Ser Lys Asp Arg Thr Leu Gly
 20 25 30
 Lys Pro Asp Ser Leu Leu Val Pro Ala Val Ala Ser Asp Ser Cys Asn
 35 40 45
 Asn Ser Ile Ser Leu Leu Ser Glu Lys Leu Thr Ser Ser Cys Ser Pro
 50 55 60
 His His Ile Lys Arg Ser Val Val Glu Ala Met Gln Arg Gln Ala Arg
 65 70 75 80
 Lys Met Cys Asn Tyr Asp Lys Ile Leu Ala Thr Lys Lys Asn Leu Asp
 85 90 95
 His Val Asn Lys Ile Leu Lys Ala Lys Lys Leu Gln Arg Gln Ala Arg
 100 105 110
 Thr Gly Asn Asn Phe Val Lys Arg Arg Pro Gly Arg Pro Arg Ser Glu
 115 120 125
 Arg

<210> 4321
 <211> 278
 <212> DNA
 <213> Homo sapiens

<400> 4321
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 gaccaggctc cttggtgaga agaccaccac agcggcaggg tccagccaca gcaggcccgg
 120
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 240
 gccgcctgc ccccatcccc tccaggccac gttttaga
 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
 Met Gly Ala Gly Gly His Lys Thr Ser Ala Gln Leu Thr Pro Ala Pro
 1 5 10 15
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu
 20 25 30
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro
 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
 65 70 75 80
 Trp Gln Val Leu Gly
 85

<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

<400> 4323
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 120
 gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg
 180
 tcgaatgtgt tgacggggtc ggctccccag caggactacg ataagctgaa ggcactcgga
 240
 ggggaaaact ccagcaaac tggactctct acgtcaggca atgtggagaa aaacaaagct
 300
 gttaagagag aaacagaagc cagttctata aacctgagtg tttatgaacc ttttaaagtc
 360
 agaaaagcag aggataaatt gaaggaaagc tctgacaagg tgctggaaaa cagagtccta
 420
 gatgggaagc tgagctccga gaagaatgac accagcctcc ccagcgttgc gccatcaaag
 480
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 540
 aaggcggctt cagactcctg caaagaacca gtggccaatt cgagggaaac ctccccgtta
 600
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 660
 atcgacggga ccaaaaaacc atccctgaag caaccggata gtcccagaag catctcaagt
 720
 gagaacagca gcaaaggatc cccgtcctct cccgcggggg ccacaccagc aatccccaaa
 780
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggta
 840

ttgccagaag tggatcttga ctctggaaag aaaccttccg agcagacagc gtccgctcatg
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 gcctctgtga catcccttct gtcgtctcca gcatcagccg ccgtcccttc ctctccccc
 960
 agggcgcttc tccagtctgc ggtcgtgacc aatgcagttt cccctgcaga gctcaccccc
 1020
 aaacaggtca caatcaagcc tgtggctact gctttcctcc cagtgtctgc tgtgaagacg
 1080
 gcaggatccc aagtcattaa tttgaagctc gctaacaaca ccacggtgaa agccacggtc
 1140
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 1200
 cagcagcaaa ctgtcgtggt gccggcatcc agcctggcca atgccaaact cgtgccaaag
 1260
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 1320
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 1380
 tcgcaacccc ccaaaaaggt gtctcgagtc caggtgggtg cgtccttgca gagttctgtg
 1440
 gtggaagctt tcaacaaggt gctgagcagt gtcaatccag tccctgttta catcccaaac
 1500
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 1542

<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

Xaa	Tyr	Ser	Lys	Asp	Gly	Ala	Lys	Ser	Leu	Lys	Gly	Asp	Val	Pro	Ala
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Ser	Glu	Val	Thr	Leu	Lys	Asp	Ser	Thr	Phe	Ser	Gln	Phe	Ser	Pro	Ile
		20						25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
		35					40						45		
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
		50				55					60				
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65					70					75				80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85					90					95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100					105					110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115					120					125			
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
		130					135					140			
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145				150						155				160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
			165					170					175		
Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

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      180      185      190
Asn Ser Arg Glu Ser Ser Pro Leu Pro Lys Glu Val Asn Asp Ser Pro
      195      200      205
Arg Ala Ala Asp Lys Ser Pro Glu Ser Gln Asn Leu Ile Asp Gly Thr
      210      215      220
Lys Lys Pro Ser Leu Lys Gln Pro Asp Ser Pro Arg Ser Ile Ser Ser
      225      230      235      240
Glu Asn Ser Ser Lys Gly Ser Pro Ser Ser Pro Ala Gly Ser Thr Pro
      245      250      255
Ala Ile Pro Lys Val Arg Ile Lys Thr Ile Lys Thr Ser Ser Gly Glu
      260      265      270
Ile Lys Arg Thr Val Thr Arg Val Leu Pro Glu Val Asp Leu Asp Ser
      275      280      285
Gly Lys Lys Pro Ser Glu Gln Thr Ala Ser Val Met Ala Ser Val Thr
      290      295      300
Ser Leu Leu Ser Ser Pro Ala Ser Ala Ala Val Leu Ser Ser Pro Pro
      305      310      315      320
Arg Ala Pro Leu Gln Ser Ala Val Val Thr Asn Ala Val Ser Pro Ala
      325      330      335
Glu Leu Thr Pro Lys Gln Val Thr Ile Lys Pro Val Ala Thr Ala Phe
      340      345      350
Leu Pro Val Ser Ala Val Lys Thr Ala Gly Ser Gln Val Ile Asn Leu
      355      360      365
Lys Leu Ala Asn Asn Thr Thr Val Lys Ala Thr Val Ile Ser Ala Ala
      370      375      380
Ser Val Gln Ser Ala Ser Ser Ala Ile Ile Lys Ala Ala Asn Ala Ile
      385      390      395      400
Gln Gln Gln Thr Val Val Val Pro Ala Ser Ser Leu Ala Asn Ala Lys
      405      410      415
Leu Val Pro Lys Thr Val His Leu Ala Asn Leu Asn Leu Leu Pro Gln
      420      425      430
Gly Ala Gln Ala Thr Ser Glu Leu Arg Gln Val Leu Thr Lys Pro Gln
      435      440      445
Gln Gln Ile Lys Gln Ala Ile Ile Asn Ala Ala Ala Ser Gln Pro Pro
      450      455      460
Lys Lys Val Ser Arg Val Gln Val Val Ser Ser Leu Gln Ser Ser Val
      465      470      475      480
Val Glu Ala Phe Asn Lys Val Leu Ser Ser Val Asn Pro Val Pro Val
      485      490      495
Tyr Ile Pro Asn Leu Ser Pro Pro Ala Asn Ala Gly Ile Thr Leu Pro
      500      505      510
Thr Arg

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<210> 4325

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 4325

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cttctgcagg gactgtttca aggccttcta cgtccacaag ttcatagcca tgctgggcaa
120

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gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc
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 360
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 1380
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 1405

<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

Met	Phe	Phe	Leu	Pro	Gln	Val	Leu	Leu	Ala	Trp	Ser	Gly	Gly	Pro	Ser
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Ser	Ser	Ser	Met	Val	Trp	Gln	Val	Leu	Glu	Gly	Leu	Ser	Gln	Asp	Ser

20 25 30
 Ala Lys Arg Leu Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly
 35 40 45
 Ala Ala Cys Gly Gln Ser Leu Glu Glu Arg Ser Lys Thr Leu Ala Glu
 50 55 60
 Val Lys Pro Ile Leu Gln Ala Thr Gly Phe Pro Trp His Val Val Ala
 65 70 75 80
 Leu Glu Glu Val Phe Ser Leu Pro Pro Ser Val Leu Trp Cys Ser Ala
 85 90 95
 Gln Glu Leu Val Gly Ser Glu Gly Ala Tyr Lys Ala Ala Val Asp Ser
 100 105 110
 Phe Leu Gln Gln Gln Tyr Val Leu Gly Ala Gly Gly Gly Pro Gly Pro
 115 120 125
 Thr Gln Gly Glu Glu Gln Pro Pro Gln Pro Pro Leu Asp Pro Gln Asn
 130 135 140
 Leu Ala Arg Pro Pro Ala Pro Ala Gln Thr Glu Ala Leu Ser Gln Leu
 145 150 155 160
 Phe Cys Ser Val Arg Thr Leu Thr Ala Lys Glu Glu Leu Leu Gln Thr
 165 170 175
 Leu Arg Thr His Leu Ile Leu His Met Ala Arg Ala His Gly Tyr Ser
 180 185 190
 Lys Val Met Thr Gly Asp Ser Cys Thr Arg Leu Ala Ile Lys Leu Met
 195 200 205
 Thr Asn Leu Ala Leu Gly Arg Gly Ala Phe Leu Ala Trp Asp Thr Gly
 210 215 220
 Phe Ser Asp Glu Arg His Gly Asp Val Val Val Val Arg Pro Met Arg
 225 230 235 240
 Asp His Thr Leu Lys Glu Val Ala Phe Tyr Asn Arg Leu Phe Ser Val
 245 250 255
 Pro Ser Val Phe Thr Pro Ala Val Asp Thr Lys Ala Pro Glu Lys Ala
 260 265 270
 Ser Ile His Arg Leu Met Glu Ala Phe Ile Leu Arg Leu Gln Thr Gln
 275 280 285
 Phe Pro Ser Thr Val Ser Thr Val Tyr Arg Cys Val Trp Val Cys Ala
 290 295 300
 Gly Gly Ala Arg Val Cys Ala Val Cys Gly Cys Val Arg Val Val Ser
 305 310 315 320
 Ser Pro Leu Val Leu Arg Pro Gly Leu Arg Val Glu Pro Gln Pro Val
 325 330 335

<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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 120
 tgtgcaggtg gggaaattta gaccctgaaa aagggatgcc ctgagatcac catgagattg
 180
 aggggcaagc agggctcacc ctgactggct cacttcccag gcaccccat gagcccaggc
 240

accgcctgcc accctcactc tccaggaaga gccaccgcgt ggtggccggg atcgtgtggt
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 ggccagggcg tctgaccttg gctctcaccg ggaggccatc caggtgctga ggatggctaa
 360
 cgctaaggcc acacagccag ggagaggagg tggctcgtga caccacgatg ggacacaccc
 420
 acctctggga gaggaggggtg actccgacag cccttgccctg ccaggatgga gcctggactc
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 tggagggcat cgtgtcctgg agcagcacca gcacctcctg ttgtcaccag gcgtggatgc
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 ccgcatcatg a
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<210> 4328
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 4328
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 Ala Thr Ser Ser Pro Trp Leu Cys Gly Leu Ser Val Ser His Pro Gln
 35 40 45
 His Leu Asp Gly Leu Arg Val Arg Ala Lys Val Arg Arg Pro Gly His
 50 55 60
 His Thr Ile Pro Ala Thr Thr Arg Trp Leu Phe Leu Glu Ser Glu Gly
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 Gly Arg Arg Cys Leu Gly Ser Trp Gly Cys Leu Gly Ser Glu Pro Val
 85 90 95
 Arg Val Ser Pro Ala Cys Pro Ser Ile Ser Trp
 100 105

<210> 4329
 <211> 3192
 <212> DNA
 <213> Homo sapiens

<400> 4329
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 180
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 240
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 300
 agatctagcc agcgagatca gatactctat ctctttggga gaactggccg agaaaaagag
 360
 gaatggttta ggagatttat tctggcatct aagctaaagt cggaaatcaa gaagtcacg
 420

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480
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1140
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1260
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1320
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1860
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1920
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1980
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2040

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 2100
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 2160
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 2220
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 2280
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 2340
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 2580
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 2880
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 3180
 aaaaaaaaaa aa
 3192

<210> 4330
 <211> 371
 <212> PRT
 <213> Homo sapiens

<400> 4330
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 20 25 30
 Ser Arg Ser Pro Gln Arg Ser Pro Leu Gln Ser Ala Glu Ser Ser Pro
 35 40 45
 Thr Ala Gly Lys Lys Leu Pro Glu Val Pro Pro Ser Glu Glu Glu Glu

50 55 60
 Gln Glu Ala Trp Val Asn Ala Leu Leu Gly Arg Ile Phe Trp Asp Phe
 65 70 75 80
 Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
 85 90 95
 Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
 100 105 110
 Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
 115 120 125
 Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
 130 135 140
 Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
 145 150 155 160
 Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
 165 170 175
 Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
 180 185 190
 Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
 195 200 205
 Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
 210 215 220
 Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
 225 230 235 240
 Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
 245 250 255
 Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
 260 265 270
 Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
 275 280 285
 Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
 290 295 300
 Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
 305 310 315 320
 Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
 325 330 335
 Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
 340 345 350
 Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
 355 360 365
 Asp Arg Pro
 370

<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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 120

gatttaaagt agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca
 180

gtatatgtga ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
 240
 tcagaagtaa agattcagga attcaagcct tccaataagg ttgttcaaac agatgaaact
 300
 gcaaggaaac cagaccatgt tcctattagc agtgaagatg agaggaatgc aattttccaa
 360
 ctagaaaagg ctattttatc taatgaagcc accaaaagtg accttcagat ggcagtgcctt
 420
 tcatttgaaa aagatgatga tcataatgga cacatagatt tcatcacagc tgcacaaat
 480
 cttcgtgcc aaatgtacag cattgaacca gctgaccgtt tcaaaacaaa gcgcatagct
 540
 ggtaaaatta tacctgctat agcaacaacc actgctacag tttctggctt ggttgccttg
 600
 gagatgatca aagtaactgg tggctatcca tttgaagctt acaaaaattg ttttcttaac
 660
 ttagccattc caattgtagt atttacagag acaactgaag taaggaaaac taaaatcaga
 720
 aatggaatat catttacaat ttgggatcga tggaccgtac atggaaaaga agatttcacc
 780
 ctcttggtt tcataaatgc agtcaaagag aagtatggaa ttgagccaac aatggtggta
 840
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 900
 acaatgcata aacttgtaaa acctactact gaaaagaaat atgtggatct tactgtgtca
 960
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 1020
 agtcatgaca ctgattaata caagttgtct taacgttact ccaggaccac ttgattttgg
 1080
 aaagagtgca cttaattcag aagctaaaga aaatcagttc ataatactat ggattttctt
 1140
 ttcattaagc cttaatttta agggaaacat cagtaagaaa ctgcactgaa gaattataaa
 1200
 acattttggg gcatagcata cacttgtcta acggttcaca cgtggctatg atcacaagca
 1260
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 1320
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 1355

<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20					25				30			
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
		35					40					45			
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

50 55 60
 Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
 65 70 75 80
 Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
 85 90 95
 Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
 100 105 110
 Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
 115 120 125
 Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
 130 135 140
 Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
 145 150 155 160
 Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
 165 170 175
 Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
 180 185 190
 Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
 195 200 205
 Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
 210 215 220
 Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
 225 230 235 240
 Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
 245 250 255
 Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
 260 265 270
 Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
 275 280 285
 Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
 290 295 300
 Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
 305 310 315 320
 Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
 325 330 335
 Arg Tyr Tyr Phe Ser His Asp Thr Asp
 340 345

<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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 120

 cggaagcccc ccgcgtcttc ccgagtgtcc aggatgtttt ccgtgggtca cccagccgac
 180

 aaggtgccgc agcccagagc gctggacctg gtgtacacgg cgctgaagcg gggcctgacg
 240

 gcctacttgg aagtgcacca gcaggagcaa gagaaactcc aggggcagat aagggagtcc
 300

aagaggaatt cccgcttggg cttcctgtat gatctggaca agcaagtcaa gtccattgaa
360
cgcttcctgc gacgactgga gttccatgcc agcaagatcg atgagctgta tgaggcatac
420
tgtgtccagc ggcgtctccg ggatggtgcc tacaacatgg tccgtgccta caccactggg
480
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660
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720
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780
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840
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900
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960
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1080
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1278

<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35					40					45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
		50				55					60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70					75					80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Lys	Leu	Gln	Gly	Gln	
			85				90					95			
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

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      100      105      110
Asp Lys Gln Val Lys Ser Ile Glu Arg Phe Leu Arg Arg Leu Glu Phe
      115      120      125
His Ala Ser Lys Ile Asp Glu Leu Tyr Glu Ala Tyr Cys Val Gln Arg
      130      135      140
Arg Leu Arg Asp Gly Ala Tyr Asn Met Val Arg Ala Tyr Thr Thr Gly
145      150      155      160
Ser Pro Gly Ser Arg Glu Ala Arg Asp Ser Leu Ala Glu Ala Thr Arg
      165      170      175
Gly His Arg Glu Tyr Thr Glu Val Gly Asp Gly Gly Pro
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<210> 4335
 <211> 1211
 <212> DNA
 <213> Homo sapiens

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<400> 4335
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120
ctggccttgg gtgcggcact cgtgaatgta cagatcccc tgctcctggg ccagctggta
180
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240
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660
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720
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780
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840
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960
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gctgcccttc cccatgcctg ccacttccag ggatgacaag ctgacccctg tccccacaca
1080

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ccccaccctt atagcttatt gctttgcgtt ggtccaaaac caccgctca gctgagcctc
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 1200
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 1211

<210> 4336
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 4336
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 20 25 30
 Leu Gly Ala Ala Leu Val Asn Val Gln Ile Pro Leu Leu Leu Gly Gln
 35 40 45
 Leu Val Glu Val Val Ala Lys Tyr Thr Arg Asp His Val Gly Ser Phe
 50 55 60
 Met Thr Glu Ser Gln Asn Leu Ser Thr His Leu Leu Ile Leu Tyr Gly
 65 70 75 80
 Val Gln Gly Leu Leu Thr Phe Gly Tyr Leu Val Leu Leu Ser His Val
 85 90 95
 Gly Glu Arg Met Ala Val Asp Met Arg Arg Ala Leu Phe Ser Ser Leu
 100 105 110
 Leu Arg Gln Asp Ile Thr Phe Phe Asp Ala Asn Lys Thr Gly Gln Leu
 115 120 125
 Val Ser Arg Leu Thr Thr Asp Val Gln Glu Phe Lys Ser Ser Phe Lys
 130 135 140
 Leu Val Ile Ser Gln Gly Leu Arg Ser Cys Thr Gln Val Ala Gly Cys
 145 150 155 160
 Leu Val Ser Leu Ser Met Leu Ser Thr Arg Leu Thr Leu Leu Met
 165 170 175
 Val Ala Thr Pro Ala Leu Met Gly Val Gly Thr Leu Met Gly Ser Gly
 180 185 190
 Leu Arg Lys Leu Ser Arg Gln Cys Gln Glu Gln Ile Ala Arg Ala Met
 195 200 205
 Gly Val Ala Asp Glu Ala Leu Gly Asn Val Arg Thr Val Arg Ala Phe
 210 215 220
 Ala Met Glu Gln Arg Glu Glu Glu Arg Tyr Gly Ala Glu Leu Glu Ala
 225 230 235 240
 Cys Arg Cys Arg Ala Glu Glu Leu Gly Arg Gly Ile Ala Leu Phe Gln
 245 250 255
 Gly Leu Ser Asn Ile Ala Phe Asn Cys Met Val Leu Gly Thr Leu Phe
 260 265 270
 Ile Gly Gly Ser Leu Val Ala Gly Gln Gln Leu Thr Gly Gly Asp Leu
 275 280 285
 Met Ser Phe Leu Val Ala Ser Gln Thr Val Gln Ser Phe Leu Arg Val
 290 295 300
 Ala Pro Cys Pro Asn Ser Leu Pro Leu Gln Ala Val Thr Leu His Ala
 305 310 315 320
 Trp Lys Asp His Pro

325

<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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120
cctggggaggc tgagggtgag gaaggccagc tgtgctggct gcagagggct ttgctgtttc
180
tccacagagc agcaggtcgc cccttccctt ctccctccct ccacctcacc tccatgggct
240
ccactggatg ggaacatgt gcttggtctc cccacccta gactgggatc tccctggggca
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360
gaacagtgat accaggcata gccttgcctt ttagcatcct gagggccacg tggagttttc
420
tgcaacactg cccgccgtgt tccagcatct gccttccact t
461

<210> 4338

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4338

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Thr Trp Phe Pro Ser Ser Gly Ala His Gly Gly Glu Val Glu Gly Gly
35 40 45
Arg Arg Glu Gly Ala Thr Cys Cys Ser Val Glu Lys Gln Gln Ser Pro
50 55 60
Leu Gln Pro Ala Gln Leu Ala Phe Leu Thr Leu Ser Leu Pro Gly Leu
65 70 75 80
Cys Gly Arg Glu Gly Gln Ala Arg Trp Pro Ala Arg Asp Val Val Phe
85 90 95
Ser Phe Val Leu Cys Thr Met Pro Gln Lys Asn Ile Leu Leu Ile Cys
100 105 110
Asn Gln Asp Asn Ile Ile
115

<210> 4339

<211> 5269

<212> DNA

<213> Homo sapiens

<400> 4339

3530

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120
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180
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240
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420
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 <211> 1088
 <212> PRT
 <213> Homo sapiens

<400> 4340
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 Gly Pro Glu Pro Glu Arg Pro Ser Pro Gly Asp Gly Asn Pro Arg Glu
 35 40 45
 Asn Ser Pro Phe Leu Asn Asn Val Glu Val Glu Gln Glu Ser Phe Phe
 50 55 60
 Glu Gly Lys Asn Met Ala Leu Phe Glu Glu Glu Met Asp Ser Asn Pro
 65 70 75 80
 Met Val Ser Ser Leu Leu Asn Lys Leu Ala Asn Tyr Thr Asn Leu Ser
 85 90 95
 Gln Gly Val Val Glu His Glu Glu Asp Glu Glu Ser Arg Arg Arg Glu
 100 105 110
 Ala Lys Ala Pro Arg Met Gly Thr Phe Ile Gly Val Tyr Leu Pro Cys
 115 120 125
 Leu Gln Asn Ile Leu Gly Val Ile Leu Phe Leu Arg Leu Thr Trp Ile
 130 135 140
 Val Gly Val Ala Gly Val Leu Glu Ser Phe Leu Ile Val Ala Met Cys
 145 150 155 160
 Cys Thr Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala Ile Ala Thr
 165 170 175
 Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Tyr Met Ile Ser Arg Ser
 180 185 190
 Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe Tyr Leu Gly
 195 200 205
 Thr Thr Phe Ala Gly Ala Met Tyr Ile Leu Gly Thr Ile Glu Ile Phe
 210 215 220
 Leu Thr Tyr Ile Ser Pro Gly Ala Ala Ile Phe Gln Ala Glu Ala Ala
 225 230 235 240
 Gly Gly Glu Ala Ala Met Leu His Asn Met Arg Val Tyr Gly Thr
 245 250 255
 Cys Thr Leu Val Leu Met Ala Leu Val Val Phe Val Gly Val Lys Tyr

3535

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Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu
              740              745              750
Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser
              755              760              765
Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly
              770              775              780
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys
785              790              795              800
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg
              805              810              815
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp
              820              825              830
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val
              835              840              845
Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu
              850              855              860
Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr
865              870              875              880
Val Ala Gln Val Asp Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln
              885              890              895
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu
              900              905              910
Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met
              915              920              925
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn
              930              935              940
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser
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His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys
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              995              1000              1005
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr
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Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln
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Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp
              1045              1050              1055
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg
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<210> 4341
 <211> 693
 <212> DNA
 <213> Homo sapiens

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<210> 4342
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 <212> PRT
 <213> Homo sapiens

<400> 4342
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 20 25 30
 Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr
 35 40 45
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
 50 55 60
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys
 65 70 75 80
 Lys Phe Phe Lys Ala Tyr Asn Leu Lys Ser Thr Ser Thr Tyr Ser Arg
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 Asn Ile Val Ala Phe Ser Ile
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<210> 4343
 <211> 499
 <212> DNA
 <213> Homo sapiens

<400> 4343

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 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4344
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 Gly Gly Glu Arg Arg Thr Asp Phe Arg Gly Gly Pro Gly His Ala Ala
 50 55 60
 Glu Thr Thr Arg Leu Pro Gly Gly Gly Gln Asp Arg Pro Cys Pro Asp
 65 70 75 80
 Lys Met Glu Phe Pro Val Trp Leu Gln Leu Ala Ala Arg Ser Gln Ser
 85 90 95
 Ser Ser Val Ile Arg Leu Ser Asp Cys Ser Pro Phe Ile Ser Phe Ala
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 Val Val Gln Ile Leu Ile
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<210> 4345
 <211> 349
 <212> DNA
 <213> Homo sapiens

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<210> 4346
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4346
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 20 25 30
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 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
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 His His Cys Ala
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<210> 4347
 <211> 353
 <212> DNA
 <213> Homo sapiens

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<210> 4348
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 4348

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 20 25 30
 Arg Gln Cys Arg Gly Arg Ser Arg Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
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 Gly Ser Ala Gly Cys Pro Gly Leu
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<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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<210> 4350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

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Phe	Pro	Pro	Leu	Ala	His	Ala	Pro	Leu	Thr	Gly	Thr	Arg	Pro	Ser	Cys
			35					40						45	
Gly	Pro	Arg	Leu	Trp	His	Gly	Thr	Cys	Pro	Ser	Ala	Gln	His	Gly	Pro
			50			55					60				
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<210> 4358
 <211> 115
 <212> PRT
 <213> Homo sapiens

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<400> 4358
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Gln Lys Pro Trp Pro Ser Pro Ala Val Phe Phe Arg Arg Asn Val Arg
35     40     45
Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
50     55     60
Leu Ser Thr Ala Val Val Gly Ala Pro Leu Leu Gly Ala Arg Tyr
65     70     75     80
Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
85     90     95
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Leu Asp Tyr

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115

<210> 4359

<211> 3661

<212> DNA

<213> Homo sapiens

<400> 4359

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<210> 4360

<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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			20					25					30		
Thr	Phe	Gly	Pro	Ala	Phe	Ser	Ala	Val	Thr	Thr	Ile	Thr	Lys	Ala	Asp
		35					40					45			
Gly	Thr	Ser	Thr	Tyr	Lys	Gln	His	Cys	Arg	Thr	Pro	Ser	Ser	Ser	Ser
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Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
65					70					75				80	
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85					90						95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
			100					105					110		
Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
			115				120					125			
Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
		130				135					140				
Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
145					150					155				160	
Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
				165					170					175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

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180      185      190
Arg Val Ala Gly Ser Gly Lys Pro Pro Ile Phe Glu Val Asp Pro Arg
195      200      205
Gly Cys Pro Phe Thr Ile Lys Leu Ser Ala Arg Lys Asp His Glu Gly
210      215      220
Ser Cys Asp Tyr Arg Pro Val Arg Cys Pro Asn Asn Pro Ser Cys Pro
225      230      235      240
Pro Leu Leu Arg Met Asn Leu Glu Ala His Leu Lys Glu Cys Glu His
245      250      255
Ile Lys Cys Pro His Ser Lys Tyr Gly Cys Thr Phe Ile Gly Asn Gln
260      265      270
Asp Thr Tyr Glu Thr His Leu Glu Thr Cys Arg Phe Glu Gly Leu Lys
275      280      285
Glu Phe Leu Gln Gln Thr Asp Asp Arg Phe His Glu Met His Val Ala
290      295      300
Leu Ala Gln Lys Asp Gln Glu Ile Ala Phe Leu Arg Ser Met Leu Gly
305      310      315      320
Lys Leu Ser Glu Lys Ile Asp Gln Leu Glu Lys Ser Leu Glu Leu Lys
325      330      335
Phe Asp Val Leu Asp Glu Asn Gln Ser Lys Leu Ser Glu Asp Leu Met
340      345      350
Glu Phe Arg Arg Asp Ala Ser Met Leu Asn Asp Glu Leu Ser His Ile
355      360      365
Asn Ala Arg Leu Asn Met Gly Ile Leu Gly Ser Tyr Asp Pro Gln Gln
370      375      380
Ile Phe Lys Cys Lys Gly Thr Phe Val Gly His Gln Gly Pro Val Trp
385      390      395      400
Cys Leu Cys Val Tyr Ser Met Gly Asp Leu Leu Phe Ser Gly Ser Ser
405      410      415
Asp Lys Thr Ile Lys Val Trp Asp Thr Cys Thr Thr Tyr Lys Cys Gln
420      425      430
Lys Thr Leu Glu Gly His Asp Gly Ile Val Leu Ala Leu Cys Ile Gln
435      440      445
Gly Cys Lys Leu Tyr Ser Gly Ser Ala Asp Cys Thr Ile Ile Val Trp
450      455      460
Asp Ile Gln Asn Leu Gln Lys Val Asn Thr Ile Arg Ala His Asp Asn
465      470      475      480
Pro Val Cys Thr Leu Val Ser Ser His Asn Val Leu Phe Ser Gly Ser
485      490      495
Leu Lys Ala Ile Lys Val Trp Asp Ile Val Gly Thr Glu Leu Lys Leu
500      505      510
Lys Lys Glu Leu Thr Gly Leu Asn His Trp Val Arg Ala Leu Val Ala
515      520      525
Ala Gln Ser Tyr Leu Tyr Ser Gly Ser Tyr Gln Thr Ile Lys Ile Trp
530      535      540
Asp Ile Arg Thr Leu Asp Cys Ile His Val Leu Gln Thr Ser Gly Gly
545      550      555      560
Ser Val Tyr Ser Ile Ala Val Thr Asn His His Ile Val Cys Gly Thr
565      570      575
Tyr Glu Asn Leu Ile His Val Trp Asp Ile Glu Ser Lys Glu Gln Val
580      585      590
Arg Thr Leu Thr Gly His Val Gly Thr Val Tyr Ala Leu Ala Val Ile
595      600      605
Ser Thr Pro Asp Gln Thr Lys Val Phe Ser Ala Ser Tyr Asp Arg Ser

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610	615	620
Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu		
625	630	635
Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu		640
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Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys		655
	660	665
		670

<210> 4361
 <211> 574
 <212> DNA
 <213> Homo sapiens

<400> 4361
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 180
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<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 4362
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 Gly Asn Leu Leu Val Thr Gly Ala Ala Asp Gly Val Ile Arg Leu Phe
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 Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly
 35 40 45
 Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
 50 55 60
 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
 65 70 75 80
 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
 85 90 95
 Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

Ile Gly Ile Asn
115

105

110

<210> 4363
<211> 1222
<212> DNA
<213> Homo sapiens

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 180
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<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
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 20 25 30
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
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 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
 65 70 75

<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

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<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
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 20 25 30
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

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65              70              75              80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
              85              90              95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
              100              105              110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
              115              120              125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
              130              135              140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
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<210> 4367
 <211> 852
 <212> DNA
 <213> Homo sapiens

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<400> 4367
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720
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<210> 4368
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 4368

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 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
 65 70 75 80
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
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<210> 4369

<211> 1264

<212> DNA

<213> Homo sapiens

<400> 4369

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 180
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 aatggaacta atgccaagc gtttgagtta agctacctcg agaaggttcc agaagtcaaa
 300
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 ccagacagct ccgatctgta ctcggagatc ggggccatca ccaggtcagc caagggtgac
 420
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 660
 aacataaaca aattctgcag gattattagt gaatttgcac tagagtatcg cacaaccagg
 720
 gaaagggttt tgcagcagaa acagaaacgg gccaaccaca gagagagaaa taagaccaga
 780
 gggaagatga tcaccgattc tggcaagttc tccggcagtt ctccggcgcc cccaagccag
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 aaaacctcgt cccctccag gagtccctg cacatacctt ctccatcgtg tcagctgtgt
 960

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 1140
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 1264

<210> 4370
 <211> 322
 <212> PRT
 <213> Homo sapiens

<400> 4370
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 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu
 35 40 45
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys
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 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu
 65 70 75 80
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val
 85 90 95
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val
 100 105 110
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser
 115 120 125
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu
 130 135 140
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp
 145 150 155 160
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln
 165 170 175
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu
 180 185 190
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu
 195 200 205
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys
 210 215 220
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg
 225 230 235 240
 Glu Arg Val Leu Gln Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg
 245 250 255
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly
 260 265 270
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
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Phe	Ser														

<210> 4371
 <211> 907
 <212> DNA
 <213> Homo sapiens

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<210> 4372
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4372
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Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Ser Leu
      35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
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Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
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300

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<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

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 Gly Leu Ile Ala Pro Gly Pro Thr Thr Ala Val Ser Tyr Met Ser Val
 35 40 45
 Lys Cys Val Asp Ala Arg Lys Asn His His Lys Thr Lys Trp Phe Val
 50 55 60
 Pro Trp Gly Pro Asn His Cys Asp Lys Ile Arg Asp Ile Glu Glu Ala
 65 70 75 80
 Ile Pro Arg Glu Ile Glu Ala Asn Asp Ile Val Phe Ser Val His Ile
 85 90 95
 Pro Leu Pro His Met Glu Met Ser Pro Trp Phe Gln Phe Met Leu Phe
 100 105 110
 Ile Leu Gln Leu Asp Ile Ala Phe Lys Leu Asn Asn Gln Ile Arg Glu
 115 120 125
 Asn Ala Glu Val Ser Met Asp Val Ser Leu Ala Tyr Arg Asp Asp Ala
 130 135 140
 Phe Ala Glu Trp Thr Glu Met Ala His Glu Arg Val Pro Arg Lys Leu
 145 150 155 160
 Lys Cys Thr Phe Thr Ser Pro Lys Thr Pro Glu His Glu Gly Arg Tyr
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 Tyr Glu Cys Asp Val Leu Pro Phe Met Glu Ile Gly Ser Val Ala His

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<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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		20						25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35						40					45		
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50					55					60				
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70					75				80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
				85					90					95	
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
			100					105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Asp	Leu	Leu	Val	Val	His	Thr	
		115					120					125			
Arg	Arg	Tyr	Leu	Asn	Glu	Leu	Lys	Trp	Ser	Phe	Ala	Val	Ala	Thr	Ile

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 Thr Glu Ile Pro Pro Val Ile Phe Leu Pro Asn Phe Leu Val Gln Arg
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 Lys Val Leu Arg Pro Leu Arg Thr Gln Thr Gly Gly Thr Ile Met Ala
 165 170 175
 Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
 180 185 190
 Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
 195 200 205
 Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
 210 215 220
 Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
 225 230 235 240
 Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
 245 250 255
 Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
 260 265 270
 Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
 275 280 285
 Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
 290 295 300
 Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
 305 310 315 320
 Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
 325 330 335
 Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
 340 345 350
 Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
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<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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<210> 4378

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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Ser	Met	Arg	Glu	His	Pro	Ala	Leu	Arg	Ser	Leu	Arg	Leu	Leu	Thr	Leu
	35						40					45			
Glu	Gln	Pro	Gln	Gly	Asp	Ser	Met	Met	Thr	Cys	Glu	Gln	Ala	Gln	Leu
	50					55					60				
Leu	Ala	Asn	Leu	Ala	Arg	Leu	Ile	Gln	Ala	Lys	Lys	Ala	Leu	Asp	Leu
65					70				75					80	
Gly	Thr	Phe	Thr	Gly	Tyr	Ser	Ala	Leu	Ala	Leu	Ala	Leu	Ala	Leu	Pro
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Ala	Asp	Gly	Arg	Val	Val	Thr	Cys	Glu	Val	Asp	Ala	Gln	Pro	Pro	Glu
		100						105					110		
Leu	Gly	Arg	Pro	Leu	Trp	Arg	Gln	Ala	Glu	Ala	Glu	His	Lys	Ile	Arg
	115					120						125			
Leu	Arg	Leu	Lys	Pro	Ala	Leu	Glu	Thr	Leu	Asp	Glu	Leu	Leu	Ala	Ala
	130					135					140				
Gly	Glu	Ala	Gly	Thr	Phe	Asp	Val	Ala	Val	Val	Asp	Ala	Asp	Lys	Glu
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			165					170						175	
Gly	Ile	Leu	Ala	Val	Leu	Arg	Val	Leu	Trp	Arg	Gly	Lys	Val	Leu	Gln
	180							185					190		
Pro	Pro	Lys	Gly	Asp	Val	Ala	Ala	Glu	Cys	Val	Arg	Asn	Leu	Asn	Glu
	195					200						205			
Arg	Ile	Arg	Arg	Asp	Val	Arg	Val	Tyr	Ile	Ser	Leu	Leu	Pro	Leu	Gly
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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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<210> 4380

<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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			20					25					30		
Arg	Gly	Ala	Leu	Arg	Thr	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Gly	Leu	Trp
		35					40					45			
Ala	Gln	Thr	Ser	Val	Leu	His	Arg	Glu	Asp	Leu	Glu	Arg	Leu	Gly	Val
		50				55					60				
Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
65					70					75				80	
Asp	Arg	Val	Ser	Lys	Gly	Cys	Tyr	Ser	Phe	Ile	His	Leu	Ser	Phe	Gln
				85					90					95	
Gln	Phe	Leu	Thr	Ala	Leu	Phe	Tyr	Thr	Leu	Glu	Lys	Glu	Glu	Glu	Glu
			100					105					110		
Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
		115					120					125			
Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

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 Tyr Ser Phe Gly Leu Ala Asn Glu Lys Arg Ala Lys Glu Leu Glu Ala
 145 150 155 160
 Thr Phe Gly Cys Arg Met Ser Pro Asp Ile Lys Gln Glu Leu Leu Arg
 165 170 175
 Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln
 180 185 190
 Glu Leu Leu Gly Cys Leu Tyr Glu Ser Gln Glu Glu Glu Leu Val Lys
 195 200 205
 Glu Val Met Ala Gln Phe Lys Glu Ile Ser Leu His Leu Asn Ala Val
 210 215 220
 Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln
 225 230 235 240
 Lys Met Ser Leu Gln Val Ile Lys Glu Asn Leu Pro Glu Asn Val Thr
 245 250 255
 Ala Ser Glu Ser Asp Ala Glu Val Glu Arg Ser Gln Asp Asp Gln His
 260 265 270
 Met Leu Pro Phe Trp Thr Asp Leu Cys Ser Ile Phe Gly Ser Asn Lys
 275 280 285
 Asp Leu Met Gly Leu Ala Ile Asn Asp Ser Phe Leu Ser Ala Ser Leu
 290 295 300
 Val Arg Ile Leu Cys Glu Gln Ile Ala Ser Asp Thr Cys His Leu Gln
 305 310 315 320
 Arg Val Val Phe Lys Asn Ile Ser Pro Ala Asp Ala His Arg Asn Leu
 325 330 335
 Xaa Pro Xaa Ala Leu Arg Gly His Lys Thr Val Thr Tyr Leu Thr Leu
 340 345 350
 Gln Gly Asn Asp Gln Asp Asp Met Phe Pro Ala Leu Cys Glu Val Leu
 355 360 365
 Arg His Pro Glu Cys Asn Leu Arg Tyr Leu Gly Leu Val Ser Cys Ser
 370 375 380
 Ala Thr Thr Gln Gln Trp Ala Asp Leu Ser Leu Ala Leu Glu Val Asn
 385 390 395 400
 Gln Ser Leu Thr Cys Val Asn Leu Ser Asp Asn Glu Leu Leu Asp Glu
 405 410 415
 Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu
 420 425 430
 Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys
 435 440 445
 Asp Leu Ala Ala Val Leu Val Val Ser Arg Glu Leu Thr His Leu Cys
 450 455 460
 Leu Ala Lys Asn Pro Ile Gly Asn Thr Gly Val Lys Phe Leu Cys Glu
 465 470 475 480
 Gly Leu Arg Tyr Pro Glu Cys Lys Leu Gln Thr Leu Val Leu Trp Asn
 485 490 495
 Cys Asp Ile Thr Ser Asp Gly Cys Cys Asp Leu Thr Lys Leu Leu Gln
 500 505 510
 Glu Lys Ser Ser Leu Leu Cys Leu Asp Leu Gly Leu Asn His Ile Gly
 515 520 525
 Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys
 530 535 540
 Asn Leu Arg Cys Leu Trp Leu Trp Gly Cys Ser Ile Pro Pro Phe Ser
 545 550 555 560
 Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr

				565						570					575				
Leu	Asp	Leu	Gly	Gln	Asn	Pro	Leu	Gly	Ser	Ser	Gly	Val	Lys	Met	Leu				
			580								585				590				
Phe	Glu	Thr	Leu	Thr	Cys	Ser	Ser	Gly	Thr	Leu	Arg	Thr	Leu	Arg	Leu				
			595					600						605					
Lys	Ile	Asp	Asp	Phe	Asn	Asp	Glu	Leu	Asn	Lys	Leu	Leu	Glu	Glu	Ile				
		610					615					620							
Glu	Glu	Lys	Asn	Pro	Gln	Leu	Ile	Ile	Asp	Thr	Glu	Lys	His	His	Pro				
625						630					635				640				
Trp	Glu	Glu	Arg	Pro	Ser	Ser	His	Asp	Phe	Met	Ile								
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<210> 4381

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 4381

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120
cagtacaagg gcacatgctg cgaggcaggg cgtgccatgc acctcctcaa gaagcgcgaa
180
aggcagcggg agcagatgga ggtgctgaag cagcgcatcg ccgaggagac catcctcaag
240
tcgcaggtgg acaagaggtt ctcggcgcat tacgacgccc tggaggccga gctgaagtcc
300
agcgcggtgg gcctgggtgac cctgaacgac atgaaggccc ggaggaggcg cctgggtcagg
360
gagcgcgagc ggagctggc caagcgccag cacctggagg agcagcggtc gcagcaggag
420
cggcagcggg agcaggagca gcggcgcgag cgcaagcgta agatctcctg cctgtccttt
480
gcactagacg acctcgatga ccaggccgac gcggccgagg ccaggcgcg cggaaacctg
540
ggcaagaacc ccgacgtgga caccagcttc ctgccagacc gcgaccgga ggaggaggag
600
aaccggctcc gagaggagct gcgccaagag tgggaggcgc agcgcgagaa agtgaaggac
660
gaggagatgg aggtcacctt cagctactgg gacggctcgg gccaccggcg cacggtgcgg
720
gtgcgcaagg gcaacacggt gcagcagttc ctgaagaagg cgctgcaggg gctgcgcaag
780
gacttcctgg agctgcgctc cgccggcggt gagcagctca tgttcatcaa ggaggacctc
840
atcctgccgc actaccacac cttctacgac ttcatcatcg ccaggggcag gggcaagagc
900
gggccgctct tcagcttcga tgtgcacgat gacgtgcgcc tgctcagcga cgccaccatg
960
gagaaggacg agtcgcacgc gggcaagggt gtgctgcgca gctggtacga gaagaacaag
1020
cacatcttcc ccgccagccg ctgggaggcc tatgaccccg agaagaagtg ggacaagtac
1080

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accatccgct aacacccgcc tgccagagcg gaaaccgggg gtggggggag acactcattt
 1140
 ctaggcccca tcaccagtca cttgatttcg tgaccttgat ttcttcccc aaatttaata
 1200
 aagacagagg gttctcatga ttcacattgg ttgtgctatt gctgatgtta tgctttgggt
 1260
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 1320
 ctgagctgta ttgaaaccat gactgggccc actgtcagac agaaattaga ataggaggca
 1380
 cattttttac ctgggtggta tgagcatgga cttgggggcc acagtgactg agtttgattc
 1440
 ccgacacagc ctctccttg ctgtgtagtt ttgggtaagc ttattaaacc cccatgcctc
 1500
 agtttggtca cctgtaaaag gaaataacaa gagcacttac ttataagat tgatgtgagt
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 1638

<210> 4382

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

Met	Ala	Gln	Tyr	Lys	Gly	Thr	Met	Arg	Glu	Ala	Gly	Arg	Ala	Met	His
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Leu	Leu	Lys	Lys	Arg	Glu	Arg	Gln	Arg	Glu	Gln	Met	Glu	Val	Leu	Lys
			20					25					30		
Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
		35					40					45			
Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
	50					55					60				
Val	Gly	Leu	Val	Thr	Leu	Asn	Asp	Met	Lys	Ala	Arg	Gln	Glu	Ala	Leu
65					70					75				80	
Val	Arg	Glu	Arg	Glu	Arg	Gln	Leu	Ala	Lys	Arg	Gln	His	Leu	Glu	Glu
			85						90				95		
Gln	Arg	Leu	Gln	Gln	Glu	Arg	Gln	Arg	Glu	Gln	Glu	Gln	Arg	Arg	Glu
		100						105					110		
Arg	Lys	Arg	Lys	Ile	Ser	Cys	Leu	Ser	Phe	Ala	Leu	Asp	Asp	Leu	Asp
		115					120					125			
Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
	130					135					140				
Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
145					150					155				160	
Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
			165					170					175		
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
		180						185					190		
Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
		195					200					205			
Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

```

      210              215              220
Leu Glu Leu Arg Ser Ala Gly Val Glu Gln Leu Met Phe Ile Lys Glu
225              230              235              240
Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245              250              255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
      290              295              300
Phe Pro Ala Ser Arg Trp Glu Ala Tyr Asp Pro Glu Lys Lys Trp Asp
305              310              315              320
Lys Tyr Thr Ile Arg
      325

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<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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<400> 4383
cgagatctgg cgtgttttat acagtttgaa aatgtcaaca tttactatgg gactcagcat
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aaaatgaaat ataaagcgcc cactgactat tgctttgttt taaagcaccc ccaaattcag
120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
gtcatgggaa tacggatagc caagtatggg aagactctct atgataacta ccagcgggct
240
gtggcaaagg ctggacttgc ctctcgggtgg acaaacttgg ggacagtcaa tgcagctgca
300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agcccaatgg acagattccc
360
caggctacac atttcttcag tgctgttctc caagaagccc agagacatgc tgaaaactn
419

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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

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<400> 4384
Arg Asp Leu Ala Cys Phe Ile Gln Phe Glu Asn Val Asn Ile Tyr Tyr
1      5      10      15
Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

```

```

      85              90              95
Asn Ala Ala Ala Pro Ala Gln Pro Phe Thr Gly Pro Lys Thr Gly Thr
      100              105              110
Thr Gln Pro Asn Gly Gln Ile Pro Gln Ala Thr His Phe Ser Ala
      115              120              125
Val Leu Gln Glu Ala Gln Arg His Ala Glu Asn
      130              135

```

<210> 4385
 <211> 754
 <212> DNA
 <213> Homo sapiens

```

<400> 4385
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tcccggctgc tcaagcgggt gggaaggagc ggccactctt gctgaaagggt ggctgggaga
120
ggtcctggtc agagtcggag tcagagtccc aggaggggag tggagggctc aggcactggt
180
gcccccttggt gctcttagg ctcgaggcct tgggacaggc ccccgagcac aaagtgaggg
240
tgtctatgga gttctgcagc acgtgcacag cagaccatat atcactcagt tccttctgga
300
ggtcatectt ccagcagcca ctggctccct gcggtatctc ttcagtctcc ggacaggcgg
360
ctgtctcatg accctgctgc ttcattcttg tcaggatttt ggggcatttc acctgcgttt
420
tctgcatttt ctgaatgttc accaagttct ctgagatctc atcctcctgc gcttcttcaa
480
gctgctgaat cttgatttgc tgcaagcagc tctccttctc caacatggtc actgagtggg
540
tcaggaactc gaaagccttg gtctgggcct gtaactggct cttgagtgc ccaagttcac
600
atcgaggag cttctgggag tcgggaatca tcacaatggg cttggctttg actttggaag
660
agctggtctc caagggttc acataccacc tgttcatgct ctcccatcag ggaccacgaa
720
gaaagtcctc agctgtgacg ctgaagtttg atca
754

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<210> 4386
 <211> 85
 <212> PRT
 <213> Homo sapiens

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<400> 4386
Gly Cys Leu Trp Ser Ser Ala Ala Arg Ala Gln Gln Thr Ile Tyr His
1      5      10      15
Ser Val Pro Ser Gly Gly His Pro Ser Ser Ser His Trp Leu Pro Ala
20     25     30
Val Ser Leu Gln Ser Pro Asp Arg Arg Leu Ser His Asp Pro Ala Ala
35     40     45
Ser Ser Trp Ser Gly Phe Cys Gly Ile Ser Pro Ala Phe Ser Ala Phe

```

```

      50              55              60
Ser Glu Cys Ser Pro Ser Ser Leu Arg Ser His Pro Pro Ala Leu Leu
65              70              75              80
Gln Ala Ala Glu Ser
              85

```

<210> 4387
 <211> 341
 <212> DNA
 <213> Homo sapiens

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<400> 4387
ggggggggcc ttcccatctt tttccctttt atgggggggg gggttttttaa aaaaaaagg
60
gggccccccc aaaagggggg ggggggaagg gggttttccc accccaaaaa accccccccc
120
ccccccgggn gggggggaag gggggggggg tttttccccc ctcccccccc ccctaaaaaa
180
aaaaccggga aaattttttt tcccccccc ccaaaaaaa aaaaaaacc ggggggcccc
240
ccttttttg gggggggggg tttttttttt tttttttttt tttttttttt ttttttttac
300
aaaacagaga atgtttattg tgccagaggg tggagtgtgc n
341

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<210> 4388
 <211> 113
 <212> PRT
 <213> Homo sapiens

```

<400> 4388
Gly Gly Gly Leu Pro Ile Phe Phe Pro Phe Met Gly Gly Gly Phe Phe
1      5      10      15
Lys Lys Lys Gly Gly Pro Pro Gln Lys Gly Gly Gly Gly Arg Gly Phe
20      25      30
Ser His Pro Lys Lys Pro Pro Pro Pro Pro Gly Xaa Gly Gly Arg Gly
35      40      45
Gly Gly Phe Phe Pro Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
50      55      60
Ile Phe Phe Pro Pro Pro Pro Lys Lys Lys Lys Pro Gly Gly Pro
65      70      75      80
Pro Phe Phe Gly Gly Gly Phe Phe Phe Phe Phe Phe Phe Phe
85      90      95
Phe Phe Phe Tyr Lys Thr Glu Asn Val Tyr Cys Ala Arg Gly Trp Ser
100      105      110
Val

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<210> 4389
 <211> 1895
 <212> DNA
 <213> Homo sapiens

<400> 4389

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gctgccgagg gccgcgcggt gtacgtggtg gacgacgcag ctgtcctggg cgcagaggac
120
ccagcgggtg acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc
180
gtggaacgac gcctgagtcg ccacgacgtc gtcacccctgg actcgcttaa ctacatcaaa
240
ggtttccgtt acgagctcta ctgcctggca cgggcggcgc gcaccccgct ctgcctggtc
300
tactgcgtac ggcccggcgg cccgatcgcg ggacctcagg tggcggggcgc gaacgagaac
360
cctggccgga acgtcagtggt gagttggcgg ccacgcgctg aggaggacgg gagagcccag
420
gcggcgggca gcagcgtcct caggggaactg catactgcgg actctgtagt aaatggaagt
480
gcccaggccg acgtacccaa ggaactggag cgagaagaat ccggggcgtgc ggagtctcca
540
gctcttgtga ctccggattc agagaaatct gcaaagcatg ggtccggtgc cttttactct
600
cccgaactcc tggaggccct aacgctgcgc tttgaggctc ccgattctcg gaatcgctgg
660
gaccggcctt tattcacttt ggtgggcata gaggagccgt tgccccgggc ggggatccgc
720
tctgccctgt ttgagaaccg ggccccacca ccccatcagt ctacgcagtc ccagcccctc
780
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840
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900
cacttgccgt ttaccggcc cttgaccatg gcagaactga gtcgccttcg tcgccagttt
960
atttcgtaca ctaaaatgca tcccaacaat gagaacttgc cgcaactggc caacatgttt
1020
cttcagtatt tgagccagag cctgcactaa ccagaggagg taggggggaa gccatggctt
1080
ctgatctcca ctccacttta tttctctggg aaaaataggc tgcaggcttc cagagcatat
1140
cgatgcagta ctgtactaga gctgttgtga ctgattcact caaactttcc tgcatacccc
1200
tgtgccaggc cttgggttta cagcataagt tcagactaaa gagaatggag aactattgtg
1260
gtgcaacctg gcaaatccct cagaggacag agctaagggtg gacagggatt acctagattg
1320
gatcctactt gggctatcac agagcattga ccattggctt ccctcatctg aggcgtggga
1380
gagcagactg gatagatgag aattgtttta aaacaattgt gaacagaaac tgaagatggt
1440
acagttctac atctgcacct gccctttttt cataccacaa aagtattttt tgagtactgt
1500
actgactttt tgctagtttc tattctggga ccgagttcac agataaatcc attggtttgt
1560
atccttgaga aactttgttt ttgtggaagt aagaaagtta tctactagat tatttcctct
1620

aataaaatct tttaaaatag tctactggaa tctctttcac ttaatgttcc ctgtgtaact
1680
tcatgtaaca ttttaggtat acttgtcatt gttctgcctt taagtgaagt agtattttga
1740
tagttctgag agagtagatg ttttgagcta ctctacagta attatattat gacaatttcc
1800
gtaactgttt tgcttcattc tgcatttcaa ggcaaatac attgtaagct tgtctttcat
1860
tcttcattga tttcattgaa caaatggtag gtacc
1895

<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

Arg	Val	Ala	Arg	Gly	Val	Ala	Ala	Glu	Gly	Arg	Ala	Val	Tyr	Val	Val
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Asp	Asp	Ala	Ala	Val	Leu	Gly	Ala	Glu	Asp	Pro	Ala	Val	Tyr	Gly	Asp
		20						25					30		
Ser	Ala	Arg	Glu	Lys	Ala	Leu	Arg	Gly	Ala	Leu	Arg	Ala	Ser	Val	Glu
		35				40						45			
Arg	Arg	Leu	Ser	Arg	His	Asp	Val	Val	Ile	Leu	Asp	Ser	Leu	Asn	Tyr
		50			55						60				
Ile	Lys	Gly	Phe	Arg	Tyr	Glu	Leu	Tyr	Cys	Leu	Ala	Arg	Ala	Ala	Arg
65				70					75					80	
Thr	Pro	Leu	Cys	Leu	Val	Tyr	Cys	Val	Arg	Pro	Gly	Gly	Pro	Ile	Ala
			85					90						95	
Gly	Pro	Gln	Val	Ala	Gly	Ala	Asn	Glu	Asn	Pro	Gly	Arg	Asn	Val	Ser
		100						105					110		
Val	Ser	Trp	Arg	Pro	Arg	Ala	Glu	Asp	Gly	Arg	Ala	Gln	Ala	Ala	
		115					120				125				
Gly	Ser	Ser	Val	Leu	Arg	Glu	Leu	His	Thr	Ala	Asp	Ser	Val	Val	Asn
		130				135					140				
Gly	Ser	Ala	Gln	Ala	Asp	Val	Pro	Lys	Glu	Leu	Glu	Arg	Glu	Glu	Ser
145				150					155					160	
Gly	Ala	Ala	Glu	Ser	Pro	Ala	Leu	Val	Thr	Pro	Asp	Ser	Glu	Lys	Ser
			165						170					175	
Ala	Lys	His	Gly	Ser	Gly	Ala	Phe	Tyr	Ser	Pro	Glu	Leu	Leu	Glu	Ala
		180					185						190		
Leu	Thr	Leu	Arg	Phe	Glu	Ala	Pro	Asp	Ser	Arg	Asn	Arg	Trp	Asp	Arg
		195					200				205				
Pro	Leu	Phe	Thr	Leu	Val	Gly	Ile	Glu	Glu	Pro	Leu	Pro	Pro	Ala	Gly
		210				215					220				
Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
225				230					235					240	
Thr	Gln	Ser	Gln	Pro	Leu	Ala	Ser	Gly	Ser	Phe	Leu	His	Gln	Leu	Asp
			245						250					255	
Gln	Val	Thr	Ser	Gln	Val	Leu	Ala	Gly	Leu	Met	Glu	Ala	Gln	Lys	Ser
		260						265					270		
Ala	Val	Pro	Gly	Asp	Leu	Leu	Thr	Leu	Pro	Gly	Thr	Thr	Glu	His	Leu
		275					280					285			
Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

290	295	300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro		
305	310	315
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His		320
	325	330
		335

<210> 4391
 <211> 988
 <212> DNA
 <213> Homo sapiens

<400> 4391
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 120
 ggaggtggca tgcgaccccc acccaactcc ctgcgcggcc caggcctgcc tgccatgaac
 180
 atgggcccag gagttcgtgg cccgtgggccc agccccagtg gaaactcgat cccctactcc
 240
 tcctcatccc ccggcagcta caccggacccc ccaggaggag gtggggcccc tggaacacccc
 300
 atcatgccta gccctggaga ttccaccaac tccagcgaaa acatgtacac tatcatgaac
 360
 cccatcgggc agggcgccgg caggggctaata tcccgcctcg gccctggccc ggagggcccc
 420
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 480
 atggacgggt tgccgaagag tccccccggc gccgtggccg gcctgagcaa cgcgccgggc
 540
 acccccgggg acgacggcga gatggcgccc gccgggacct tcctgcaccc gttcccgagc
 600
 gaaagctact cgccagggat gaccatgagc gtgtgatggg gcggcagccc cgggcctctc
 660
 tgcgggccta ggcttctgcc cagcgcccct gctcagggcg aggggctgag gtcacacctc
 720
 gggcacctgg actcctggcc aatcaaggct tgcccagctg ggaggcccca cacgaaagac
 780
 tcttaccatt ttattaaaaa cgcaaggacc tcagagacgt tcttttctgt atggaccctt
 840
 cctgccattt gtattttgtc ccagagagaa aggctctttg gggggcccct ctcccagga
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 960
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 988

<210> 4392
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 4392
 Xaa Pro Phe Ser Trp Pro His Gly Ala Ser Pro Arg Ala Gln Gly His

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      1           5           10           15
Pro Ser Met Gly Gly Pro Met Gln Arg Val Thr Pro Pro Arg Gly Met
      20           25           30
Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro
      35           40           45
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly
      50           55           60
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser
      65           70           75           80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Gly Pro
      85           90           95
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser
      100           105           110
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg
      115           120           125
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met
      130           135           140
Ser Ala Met Glu Pro His His Val Asn Gly Ser Leu Gly Ser Gly Asp
      145           150           155           160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser
      165           170           175
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Ala Gly
      180           185           190
Thr Phe Leu His Pro Phe Pro Ser Glu Ser Tyr Ser Pro Gly Met Thr
      195           200           205
Met Ser Val
      210

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<210> 4393

<211> 2171

<212> DNA

<213> Homo sapiens

<400> 4393

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gaggccaccc gccccggggc ctgggctcgc tgtggactcg tcatggcgac cgagcagagg
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cctttccacc tgggtggtgtt cggcgcgtct ggcttcaccg gccagttcgt gaccgaggag
120
gtggcccggg agcaggtgga cccggagcgg agctcccctg ccctgggctt ggcgggcccgc
180
tccccgggaga agctgcagcg ggtgctggag aaggcggccc tgaagctggg aagaccaaca
240
ctgtcatctg aagttggaat catcatctgt gatattgcta atccagcctc gcttgatgaa
300
atgggctaaac aggcaacagt tgtcctcaat tgcgtaggac catatcggtt ttatggagaa
360
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<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394

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Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
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Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
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Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
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Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
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Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
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<210> 4395
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<213> Homo sapiens
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<210> 4396

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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Ser	Gly	Asp	Leu	Pro	Gln	Ala	Ala	Ser	His	Leu	Gln	Glu	Leu	Leu	Ala
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Pro	Gly	Ala	Gly	Ser	Pro	Gly	Cys	Pro	Ala	Asp	Lys	Tyr	Leu	Lys	Gln
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Cys	Gly	Ala	Val	Glu	Thr	Arg	Leu	Ala	Ala	Glu	Ile	Leu	Cys	Gln	Gly
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Thr	Arg	Thr	Gln	Arg	Pro	Ser	Gly	Phe	Arg	Glu	Ala	Ala	Val	Leu	Gln

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 Asp Pro Arg Ile Phe Leu Val Ser Asn Leu Ser Pro Ala Arg Tyr Asp
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 245 250 255
 Gln Lys Lys Lys Ala Met Leu Gln Glu Gln Val Leu Lys Thr Ala Leu
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 275 280 285
 Tyr Asp Asp Ala Leu Leu Ile His Ser Leu Arg Gly Tyr His Arg Ser
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 Glu Val Ser Pro Glu Thr Val Leu Arg Leu Tyr Ser Gln Ser Ser Asp
 340 345 350
 Gly Ala Met Arg Val Ala Arg Ala Phe Glu Arg Gly Ile Pro Val Phe
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 Gly Thr Leu Val Ala Gly Gly Ile Ser Phe Gly Ala Val Tyr Thr Met
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 385 390 395 400
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 405 410 415
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<210> 4397

<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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 <212> PRT
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 Trp Phe Lys Glu Ser Asp Pro Ser Lys Leu Gln Phe Asn Thr Thr Asn
 85 90 95
 Cys Arg Ser Asp Thr Val Met Glu Lys Arg Ser Phe Lys Val Pro Leu
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 Gly Lys Gly Arg Arg Cys Val Val Leu Ala Asp Gly Phe Tyr Glu Trp
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 130 135 140
 Pro Gln Ile Lys Thr Glu Lys Ser Gly Ser Ile Gly Ala Ala Asp Ser
 145 150 155 160
 Pro Glu Asn Trp Glu Lys Val Trp Asp Asn Trp Arg Leu Leu Thr Met
 165 170 175
 Ala Gly Ile Phe Asp Cys Trp Glu Pro Pro Glu Gly Gly Asp Val Leu
 180 185 190
 Tyr Ser Tyr Thr Ile Ile Thr Val Asp Ser Cys Lys Gly Leu Ser Asp
 195 200 205
 Ile His His Arg Met Pro Ala Ile Leu Asp Gly Glu Glu Ala Val Ser

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Lys Trp Leu Asp Phe Gly Glu Val Ser Thr Gln Glu Ala Leu Lys Leu
225                230                235                240
Ile His Pro Thr Glu Asn Ile Thr Phe His Ala Val Ser Ser Val Val
      245                250                255
Asn Asn Ser Arg Asn Asn Thr Pro Glu Cys Leu Ala Pro Val Asp Leu
      260                265                270
Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu
      275                280                285
Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro
      290                295                300
Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln
305                310                315                320
Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln
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 <211> 723
 <212> DNA
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 <211> 252
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 Arg Leu His Phe Ile Pro Arg Leu Gly Ser Arg Ala Asp Leu Ile Lys
 50 55 60
 Gln Tyr Gly Arg Trp Ala Val Val Ser Gly Ala Thr Asp Gly Ile Gly
 65 70 75 80
 Lys Ala Tyr Ala Glu Leu Ala Ser Arg Gly Leu Asn Ile Ile Leu
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 Ile Ser Arg Asn Glu Glu Lys Leu Gln Val Val Ala Lys Asp Ile Ala
 100 105 110
 Asp Thr Tyr Lys Val Glu Thr Asp Ile Ile Val Ala Asp Phe Ser Ser
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1020

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<210> 4404
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 <213> Homo sapiens

<400> 4404

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Pro Gln Arg Ser Lys Phe Asp Ser Asp Glu Glu Glu Glu Asp Thr Glu
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<211> 918

<212> DNA

<213> Homo sapiens

<400> 4405

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<210> 4406

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4406

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20           25           30
Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile Val Val Met Leu Val
35           40           45
Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu Val Pro Thr Glu Glu
50           55           60
Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
65           70           75           80
Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

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<211> 974

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4408

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 Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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Glu	Arg	Asn	Ile	Gln	Cys	Val	Thr	Cys	Gly	Lys	Ala	Phe	Lys	Lys	Leu
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Trp	Ser	Leu	His	Glu	His	Asn	Lys	Ile	Val	His	Gly	Tyr	Ala	Glu	Lys
			165					170						175	
Lys	Phe	Ser	Cys	Glu	Ile	Cys	Glu	Lys	Lys	Phe	Tyr	Thr	Met	Ala	His
			180					185					190		
Val	Arg	Lys	His	Met	Val	Ala	His	Thr	Lys	Asp	Met	Pro	Phe	Thr	Cys
		195					200					205			
Glu	Thr	Cys	Gly	Lys	Ser	Phe	Lys	Arg	Ser	Met	Ser	Leu	Lys	Val	His
	210					215						220			
Ser	Leu	Gln	His	Ser	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Glu	Asn	Cys	Asp
225					230					235					240
Glu	Arg	Phe	Gln	Tyr	Lys	Tyr	Gln	Leu	Arg	Ser	His	Met	Ser	Ile	His
			245					250						255	
Ile	Gly	His	Lys	Gln	Phe	Met	Cys	Gln	Trp	Cys	Gly	Lys	Asp	Phe	Asn
		260						265					270		
Met	Lys	Gln	Tyr	Phe	Asp	Glu	His	Met	Lys	Thr	His	Thr	Gly	Glu	Lys
		275					280						285		
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro	Asn
	290					295					300				
Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro	Cys

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305          310          315          320
Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
          325          330          335
Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
          340          345          350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
          370          375          380
Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
385          390          395          400
Met Asn Ala Asn Asn
          405

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<210> 4411
 <211> 484
 <212> DNA
 <213> Homo sapiens

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120
caaaagagga gtttaggtg gctatggtgc aggggcagct gtatgcttca cctcaaagt
180
tactgtcttc tctctccatc aaggaggaag ggcccaggct ggggttagga gggctagggg
240
cccaggtgt gtgtcccctt tttctctct ggtgccctgc cccccacgc tgcatctcc
300
ctcagtggca gtgggggttc atcactgggt cttcaggtcc cttgcccatg gctggtggtg
360
ttccaggtgg gcccaaccag gcggcccctg cctctaggca gcgcgtagggt ttccttgggc
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480
atcc
484

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<210> 4412
 <211> 113
 <212> PRT
 <213> Homo sapiens

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<400> 4412
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Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
20          25          30
Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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<210> 4414

<211> 65
 <212> PRT
 <213> Homo sapiens

<400> 4414

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Met Ala Leu Leu Phe Ala Arg Ser Leu Arg Leu Cys Arg Trp Gly Ala
 1           5           10           15
Lys Arg Leu Gly Val Ala Ser Thr Glu Arg Gln Arg Gly Val Ser Phe
          20           25           30
Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
          35           40           45
Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
          50           55           60
Pro
65
  
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<210> 4415
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 4415

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120
attattgaat acacaaaagg aatgttaccg ttacttggtc atagtcaaag gtgaagttaa
180
aaaaaaaggg aagttaaata actgaagtaa tggtttgccc aaatagcaaa cgtaggatac
240
aggcgtgggc aaagagcagc tactgaagct catgaggagg atgctggata tagggtaggt
300
aacttgacaa atgcctctgc ttctttggaa ccttcttcct agatcacccc cacaaattcc
360
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420
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480
tgtctgaatc catttctctt ggggtaggag gaggtaatga acattaacgt tctgcatctc
540
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600
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660
atgagtataa actcgacagt gttctgattt cacaacatat gcatttatga caactgctaa
720
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775
  
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<210> 4416
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4416
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 1 5 10 15
 Cys Phe Lys Ile Ser Ser Asp Ile Tyr Leu Val Lys Phe His Phe Arg
 20 25 30
 Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
 35 40 45
 Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
 50 55 60
 Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
 65 70 75 80
 Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
 85 90 95
 Val Gly Val Ile
 100

<210> 4417
 <211> 980
 <212> DNA
 <213> Homo sapiens

<400> 4417
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 aaaatgaagg tggaatcgtc ccaagaagcc aatgctgagg tgatgcgaga gatgaccaag
 120
 aagctgtaca gccagtatga ggagaagctg caggaagaac agaggaagca cagtgtgag
 180
 aaggaggctc ttttggaaga aaccaatagt tttctgaaag cgattgaaga agccaataaa
 240
 aagatgcaag cagcagagat cagcctagag gagaaagacc agaggatcgg ggagctggac
 300
 aggctgattg agcgcattga aaaggaacgt catcaactgc aacttcaact cctagaacat
 360
 gaaacagaaa tgtctgggga gttaactgat tctgacaagg aaaggtatca gcagttggag
 420
 gaggcacag ccagcctccg tgagcggatc agacacctag atgacatggt gcattgccag
 480
 cagaagaaag tcaagcagat ggttgaggag attgagtcac taaagaaaaa agtgcaacag
 540
 aagcagctcc tgatactgca gcttttagaa aaaatctctt tcctggaagg agagaataat
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 gaactacaaa gcaggttgga ctatttgaca gaaacccagg ccaagactga agtggaacaa
 660
 agagaaattg gagggtgctg tgatctctt cccagcccaa caggcaggac tcgtgaaatt
 720
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 780
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 840
 ctgtggcttc aaatcctttg ggaagggtga ctgttgtttc ccctacacac agtgtaagcc
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 960

gtgagcaggt aagagagggga
980

<210> 4418
<211> 263
<212> PRT
<213> Homo sapiens

<400> 4418
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Asn Gln Leu Leu Lys Met Lys Val Glu Ser Ser Gln Glu Ala Asn Ala
20 25 30
Glu Val Met Arg Glu Met Thr Lys Leu Tyr Ser Gln Tyr Glu Glu
35 40 45
Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
50 55 60
Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
115 120 125
Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
145 150 155 160
Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
180 185 190
Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
225 230 235 240
Val Met Pro Ser Arg Asn Tyr Thr Pro Tyr Thr Arg Val Leu Glu Leu
245 250 255
Ser Ser Lys Lys Thr Leu Thr
260

<210> 4419
<211> 369
<212> DNA
<213> Homo sapiens

<400> 4419
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120

cctccgcctc cccagctcaa gcaactctcc tgccccagcc acccaagtnn aaattacagg
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 240
 tggccaggac ggtctcaaac tcctggcccc atgtgatcct cccaccttgg cctcccaagg
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 360
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<210> 4420
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4420
 Xaa Ile Pro Cys Ile Glu Ser Ala Arg Ile His Thr Ile Tyr Tyr Val
 1 5 10 15
 Phe Ile Leu Arg Gln Gly Leu Ala Leu Xaa Thr Gln Ala Gly Val Gln
 20 25 30
 Trp Cys Asp Leu Gly Ser Leu Gln Pro Pro Pro Pro Gln Leu Lys Gln
 35 40 45
 Leu Ser Cys Pro Ser His Pro Ser Xaa Asn Tyr Arg Pro Val Pro Pro
 50 55 60
 His Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Tyr
 65 70 75 80
 Trp Pro Gly Arg Ser Gln Thr Pro Gly Pro Met
 85 90

<210> 4421
 <211> 1356
 <212> DNA
 <213> Homo sapiens

<400> 4421
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 180
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 240
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 360
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 420
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 480
 aatggcagtc taacagaaaa tcatccttgt accaacagcc ccttccctcc caagttaggt
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 1020
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 1200
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 1260
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 1320
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 1356

<210> 4422
 <211> 58
 <212> PRT
 <213> Homo sapiens

<400> 4422
 Gly Arg Ala Arg Leu Thr Pro Ile Ile Pro Ala Leu Trp Lys Ala
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 Glu Ala Gly Glu Ser Pro Glu Ile Arg Ser Ser Arg Pro Ala Trp Pro
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 Thr Trp Gln Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Cys Arg Ala
 35 40 45
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<210> 4423
 <211> 2673
 <212> DNA
 <213> Homo sapiens

<400> 4423
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ccattgtgc tgggcagacg acaaaaagct ttggggaaga accgcagtgc tgatttcaac
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 2220
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 2280
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 2580
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<210> 4424

<211> 768

<212> PRT

<213> Homo sapiens

<400> 4424

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			20					25					30		
Ser	Gly	Asp	Glu	Glu	Glu	Glu	Gly	Pro	Ile	Val	Leu	Gly	Arg	Arg	Gln
		35					40				45				
Lys	Ala	Leu	Gly	Lys	Asn	Arg	Ser	Ala	Asp	Phe	Asn	Pro	Asp	Phe	Val
	50				55				60						
Phe	Thr	Glu	Lys	Glu	Gly	Thr	Tyr	Asp	Gly	Ser	Trp	Ala	Leu	Ala	Asp
65				70					75				80		
Val	Met	Ser	Gln	Leu	Lys	Lys	Lys	Arg	Ala	Ala	Thr	Thr	Leu	Asp	Glu
			85					90					95		
Lys	Ile	Glu	Lys	Val	Arg	Lys	Lys	Arg	Lys	Thr	Glu	Asp	Lys	Glu	Ala
		100						105					110		
Lys	Ser	Gly	Lys	Leu	Glu	Lys	Glu	Lys	Glu	Ala	Lys	Glu	Gly	Ser	Glu

115 120 125
 Pro Arg Glu Gln Glu Asp Leu Gln Glu Asn Asp Glu Glu Gly Ser Glu
 130 135 140
 Asp Glu Ala Ser Glu Thr Asp Tyr Ser Ser Ala Asp Glu Asn Ile Leu
 145 150 155 160
 Thr Lys Ala Asp Thr Leu Lys Val Lys Asp Arg Lys Lys Lys Lys Lys
 165 170 175
 Lys Gly Gln Glu Ala Gly Gly Phe Phe Glu Asp Ala Ser Gln Tyr Asp
 180 185 190
 Glu Asn Leu Ser Phe Gln Asp Met Asn Leu Ser Arg Pro Leu Leu Lys
 195 200 205
 Ala Ile Thr Ala Met Gly Phe Lys Gln Pro Thr Pro Ile Gln Lys Ala
 210 215 220
 Cys Ile Pro Val Gly Leu Leu Gly Lys Asp Ile Cys Ala Cys Ala Ala
 225 230 235 240
 Thr Gly Thr Gly Lys Thr Ala Ala Phe Ala Leu Pro Val Leu Glu Arg
 245 250 255
 Leu Ile Tyr Lys Pro Arg Gln Ala Pro Val Thr Arg Val Leu Val Leu
 260 265 270
 Val Pro Thr Arg Glu Leu Gly Ile Gln Val His Ser Val Thr Arg Gln
 275 280 285
 Leu Ala Gln Phe Cys Asn Ile Thr Thr Cys Leu Ala Val Gly Gly Leu
 290 295 300
 Asp Val Lys Ser Gln Glu Ala Ala Leu Arg Ala Ala Pro Asp Ile Leu
 305 310 315 320
 Ile Ala Thr Pro Gly Arg Leu Ile Asp His Leu His Asn Cys Pro Ser
 325 330 335
 Phe His Leu Ser Ser Ile Glu Val Leu Ile Leu Asp Glu Ala Asp Arg
 340 345 350
 Met Leu Asp Glu Tyr Phe Glu Glu Gln Met Lys Glu Ile Ile Arg Met
 355 360 365
 Cys Ser His His Arg Gln Thr Met Leu Phe Ser Ala Thr Met Thr Asp
 370 375 380
 Glu Val Lys Asp Leu Ala Ser Val Ser Leu Lys Asn Pro Val Arg Ile
 385 390 395 400
 Phe Val Asn Ser Asn Thr Asp Val Ala Pro Phe Leu Arg Gln Glu Phe
 405 410 415
 Ile Arg Ile Arg Pro Asn Arg Glu Gly Asp Arg Glu Ala Ile Val Ala
 420 425 430
 Ala Leu Leu Thr Arg Thr Phe Thr Asp His Val Met Leu Phe Thr Gln
 435 440 445
 Thr Lys Lys Gln Ala His Arg Met His Ile Leu Leu Gly Leu Met Gly
 450 455 460
 Leu Gln Val Gly Glu Leu His Gly Asn Leu Ser Gln Thr Gln Arg Leu
 465 470 475 480
 Glu Ala Leu Arg Arg Phe Lys Asp Glu Gln Ile Asp Ile Leu Val Ala
 485 490 495
 Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Glu Gly Val Lys Thr Val
 500 505 510
 Ile Asn Phe Thr Met Pro Asn Thr Ile Lys His Tyr Val His Arg Val
 515 520 525
 Gly Arg Thr Ala Arg Ala Gly Arg Ala Gly Arg Ser Val Ser Leu Val
 530 535 540
 Gly Glu Asp Glu Arg Lys Met Leu Lys Glu Ile Val Lys Ala Ala Lys

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          565          570          575
Arg Asp Lys Ile Glu Lys Met Glu Lys Asp Val Tyr Ala Val Leu Gln
          580          585          590
Leu Glu Ala Glu Glu Lys Glu Met Gln Gln Ser Glu Ala Gln Ile Asn
          595          600          605
Thr Ala Lys Arg Leu Leu Glu Lys Gly Lys Glu Ala Val Val Gln Glu
          610          615          620
Pro Glu Arg Ser Trp Phe Gln Thr Lys Glu Glu Arg Lys Lys Glu Lys
625          630          635          640
Ile Ala Lys Ala Leu Gln Glu Phe Asp Leu Ala Leu Arg Gly Lys Lys
          645          650          655
Lys Arg Lys Lys Phe Met Lys Asp Ala Lys Lys Lys Gly Glu Met Thr
          660          665          670
Ala Glu Glu Arg Ser Gln Phe Glu Ile Leu Lys Ala Gln Met Phe Ala
          675          680          685
Glu Arg Leu Ala Lys Arg Asn Arg Arg Ala Lys Arg Ala Arg Ala Met
          690          695          700
Pro Glu Glu Glu Pro Val Arg Gly Pro Ala Lys Lys Gln Lys Gln Gly
705          710          715          720
Lys Lys Ser Val Phe Asp Glu Glu Leu Thr Asn Thr Ser Lys Lys Ala
          725          730          735
Leu Lys Gln Tyr Arg Ala Gly Pro Ser Phe Glu Glu Arg Lys Gln Leu
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Gly Leu Pro His Gln Arg Arg Gly Gly Asn Phe Lys Ser Lys Ser Arg
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<210> 4425

<211> 5199

<212> DNA

<213> Homo sapiens

<400> 4425

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<212> PRT

<213> Homo sapiens

<400> 4428

Met Val Ala Cys Arg Ala Ile Gly Ile Leu Ser Arg Phe Ser Ala Phe
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 Ser Ala Leu Leu Thr Arg Thr His Ile Asn Tyr Gly Val Lys Gly Asp
 35 40 45
 Val Ala Val Val Arg Ile Asn Ser Pro Asn Ser Lys Val Asn Thr Leu
 50 55 60
 Ser Lys Glu Leu His Ser Glu Phe Ser Glu Val Met Asn Glu Ile Trp
 65 70 75 80
 Ala Ser Asp Gln Ile Arg Ser Ala Val Leu Ile Ser Ser Lys Pro Gly
 85 90 95
 Cys Phe Ile Ala Gly Ala Asp Ile Asn Met Leu Ala Ala Cys Lys Thr
 100 105 110
 Leu Gln Glu Val Thr Gln Leu Ser Gln Glu Ala Gln Arg Ile Val Glu
 115 120 125
 Lys Leu Glu Lys Ser Thr Lys Pro Ile Val Ala Ala Ile Asn Gly Ser
 130 135 140
 Cys Leu Gly Gly Gly Leu Glu Val Ala Ile Ser Cys Gln Tyr Arg Ile
 145 150 155 160
 Ala Thr Lys Asp Arg Lys Thr Val Leu Gly Thr Pro Glu Val Leu Leu

165 170 175
 Gly Ala Leu Pro Gly Ala Gly Gly Thr Gln Arg Leu Pro Lys Met Val
 180 185 190
 Gly Val Pro Ala Ala Leu Asp Met Met Leu Thr Gly Arg Ser Ile Arg
 195 200 205
 Ala Asp Arg Ala Lys Lys Met Gly Leu Val Asp Gln Leu Val Glu Pro
 210 215 220
 Leu Gly Pro Gly Leu Lys Pro Pro Glu Glu Arg Thr Ile Glu Tyr Leu
 225 230 235 240
 Glu Glu Val Ala Ile Thr Phe Ala Lys Gly Leu Ala Asp Lys Lys Ile
 245 250 255
 Ser Pro Lys Arg Asp Lys Gly Leu Val Glu Lys Leu Thr Ala Tyr Ala
 260 265 270
 Met Thr Ile Pro Phe Val Arg Gln Gln Val Tyr Lys Lys Val Glu Glu
 275 280 285
 Lys Val Arg Lys Gln Thr Lys Gly Leu Tyr Pro Ala Pro Leu Lys Ile
 290 295 300
 Ile Asp Val Val Lys Thr Gly Ile Glu Gln Gly Ser Asp Ala Gly Tyr
 305 310 315 320
 Leu Cys Glu Ser Gln Lys Phe Gly Glu Leu Val Met Thr Lys Glu Ser
 325 330 335
 Lys Ala Leu Met Gly Leu Tyr His Gly Gln Val Leu Cys Lys Lys Asn
 340 345 350
 Lys Phe Gly Ala Pro Gln Lys Asp Val Lys His Leu Ala Ile Leu Gly
 355 360 365
 Ala Gly Leu Met Gly Ala Gly Ile Ala Gln Val Ser Val Asp Lys Gly
 370 375 380
 Leu Lys Thr Ile Leu Lys Asp Ala Thr Leu Thr Ala Leu Asp Arg Gly
 385 390 395 400
 Gln Gln Gln Val Phe Lys Gly Leu Asn Asp Lys Val Lys Lys Lys Ala
 405 410 415
 Leu Thr Ser Phe Glu Arg Asp Ser Ile Phe Ser Asn Leu Thr Gly Gln
 420 425 430
 Leu Asp Tyr Gln Gly Phe Glu Lys His Arg Val Leu Lys Glu Val Glu Ala
 435 440 445
 Phe Glu Asp Leu Ser Leu Lys His Arg Val Leu Lys Glu Val Glu Ala
 450 455 460
 Val Ile Pro Asp His Cys Ile Phe Ala Ser Asn Thr Ser Ala Leu Pro
 465 470 475 480
 Ile Ser Glu Ile Ala Ala Val Ser Lys Arg Pro Glu Lys Val Ile Gly
 485 490 495
 Met His Tyr Phe Ser Pro Val Asp Lys Met Gln Leu Leu Glu Ile Ile
 500 505 510
 Thr Thr Glu Lys Thr Ser Lys Asp Thr Ser Ala Ser Ala Val Ala Val
 515 520 525
 Gly Leu Lys Gln Gly Lys Val Ile Ile Val Val Lys Asp Gly Pro Gly
 530 535 540
 Phe Tyr Thr Thr Arg Cys Leu Ala Pro Met Met Ser Glu Val Ile Arg
 545 550 555 560
 Ile Leu Gln Glu Gly Val Asp Pro Lys Lys Leu Asp Ser Leu Thr Thr
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 Ser Phe Gly Phe Pro Val Gly Ala Ala Thr Leu Val Asp Glu Val Gly
 580 585 590
 Val Asp Val Ala Lys His Val Ala Glu Asp Leu Gly Lys Val Phe Gly

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<400> 4429
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120
ctgcttgctc caactggctc catctctccg ttaccgggtga ggcaggcaca gtgctgcagt
180
ggcagaatgg aagtaccag gctgacttgc tctcagccag acacgacctc ttctctgagg
240
agggtgatgc caataaatgg aactccaata ggtaggcttc gctctgccct tccacaagtg
300
aacacacgcc gtgagtcctt aaatcgccag gctccgcagc ctccgagaaa gcctagtctt
360
cagacggtag gtatcccatt catccccttg catcgggaac caaagggaat gcagacagat
420
cccggtcgtg cactacattc ccaaaccttg gcacgcacgc gaaggcttgg ggcgccccgg
480
cgcgcccttc ctccgaggcc tccaccaccc gcggactcac cactatgcga gctgaaccac
540
ctgggtgcga tgtgcagagg tagagcatcc gccagcgagg ttctggggagg cccggttacc
600
gcttcccgtt tttatggtng accgcccgcg gtctcctggt aaccattgcc atgggcatag
660
gtggagtccg acgcagaccc tccgccgcgc ggcgccacta ccacctgag gtgtccaaag
720
ccgccagcgt catcaaccag gccctgtcca tgcttgaggt cagcatcgcg cacaccaacg
780

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acacgccctt ctctctctct ctctctctct ctctctctct ctccccgc tnnccctccc
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 960
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 981

<210> 4430
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4430
 Met Glu Val Pro Arg Leu Thr Cys Ser Gln Pro Asp Thr Thr Ser Ser
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 Leu Arg Arg Val Met Pro Ile Asn Gly Thr Pro Ile Gly Arg Leu Arg
 20 25 30
 Ser Ala Leu Pro Gln Val Asn Thr Arg Arg Glu Ser Leu Asn Arg Gln
 35 40 45
 Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro
 50 55 60
 Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly
 65 70 75 80
 Arg Ala Leu His Ser Gln Thr Leu Ala Arg Thr Arg Arg Leu Gly Ala
 85 90 95
 Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Pro Ala Asp Ser Pro
 100 105 110
 Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser
 115 120 125
 Ala Ser Glu Val Leu Gly Gly Pro Val Thr Ala Ser Arg Phe Tyr Gly
 130 135 140
 Xaa Pro Pro Pro Val Ser Trp
 145 150

<210> 4431
 <211> 507
 <212> DNA
 <213> Homo sapiens

<400> 4431
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 ctgggtgacc gaccatccc cgtcaccttc aagagggcc tgcagcgc tctcttctgg
 120
 cagaagggtca ggctggcttg gggcctgtgc ttcctgtcag acccatcag gtagggtcgc
 180
 cccggggacc ctggccggcc tgcagggtgg tctgtgggag gctccaggcc ctctgtgca
 240
 ggtccaagcg cagccaatcc tcaactcaagg ccttcctgc cctttccttc cgccacaaat
 300
 cccaaacaaa cgtgctgtgg tccctgcccgt gtgtccacag tgccagcccc accctccag
 360

cccgttgccc atccctgcgg ggctgcagcc atccctctcc acagcaagga tgacgtggaa
 420
 cgctgcaagc agaaggccta ctggagcaga tgatggccga gatgattggc gagttcccag
 480
 acctgcaccg caccatcggt tttggag
 507

<210> 4432
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 4432
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 1 5 10 15
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 20 25 30
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 35 40 45
 Leu Cys Phe Leu Ser Asp Pro Ile Arg
 50 55

<210> 4433
 <211> 447
 <212> DNA
 <213> Homo sapiens

<400> 4433
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 gtgaccaaca tcaccaccgt cagcctctgg gaagaattct cctccagcga cctcgcagat
 120
 ctccgcttcc tggacatgag ccagaaccag ttccagtacc tgccagacgg cttcctgagg
 180
 aaaatgcctt ccctctccca cctgaacctc caccagaatt gcctgatgac gttcacatt
 240
 cgggagcacg agccccccgg agcgctcacc gagctggacc tgagccacaa ccagctgtcg
 300
 gagctgcacc tggctccggg gctggccagc tgctgggca gcctgcgctt gttcaacctg
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 agtccaacc agctcctggg cgtccccctt ggctcttcg ccaatgctag gaacatcact
 420
 acacttgaca tgagccacaa tcagatc
 447

<210> 4434
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 4434
 Xaa Tyr Asn Thr Ser Ser Pro Arg Glu Met Val Ala Gln Phe Leu Leu
 1 5 10 15
 Val Asp Gly Asn Val Thr Asn Ile Thr Thr Val Ser Leu Trp Glu Glu

20 25 30
 Phe Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln
 35 40 45
 Asn Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser
 50 55 60
 Leu Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile
 65 70 75 80
 Arg Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His
 85 90 95
 Asn Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu
 100 105 110
 Gly Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val
 115 120 125
 Pro Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met
 130 135 140
 Ser His Asn Gln Ile
 145

<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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 120
 gtggacctgc tcctgggagg cgacctgcgc taccatctgc agcagaatgt gcatttcaca
 180
 gaggggactg tgaaactcta catctgtgag ctggcactgg ccctggagta tcttcagagg
 240
 taccacatca tccacagaga catcaagcca gacaatatcc tgctggatga acacggacat
 300
 gttcacatta cagacttcaa catagcgacg gtagtgaaag gagcagaaaag ggcttcctcc
 360
 atggctggca ccaagcccta catggctcca gaagtattcc aggtgtacat ggacagaggc
 420
 cccgatact cgtaccctgt cgactgggtg tccctgggca tcacagccta tgagctgctg
 480
 cggggctgga ggccgtacga aatccactcg gtcacgcca tcgatgaaat cctcaacatg
 540
 ttcaaggtgg agcgtgtcca ctactcctcc acgtggtgca aggggatggt ggccctgcta
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 660
 gtgccctact tggccgacat gaactgggac gcggtgttca agaaggcact gatgcccggc
 720
 tttgtgcca ataaaggag gttgaactgc gatcccatat ttgagcttga agagatgatt
 780
 cta
 783

<210> 4436

<211> 261
 <212> PRT
 <213> Homo sapiens

<400> 4436
 Xaa Ala Arg Asp Glu Val Arg Asn Val Phe Arg Glu Leu Gln Ile Met
 1 5 10 15
 Gln Gly Leu Glu His Pro Phe Val Val Asn Leu Trp Tyr Ser Phe Gln
 20 25 30
 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
 225 230 235 240
 Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
 245 250 255
 Glu Glu Met Ile Leu
 260

<210> 4437
 <211> 620
 <212> DNA
 <213> Homo sapiens

<400> 4437
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 gtgtccatgc tgaagatgga cgagagcacg ctgctgcggg aggccagga gctcagcctg
 180
 gagaagctgc agcaggccgt gaggcagaac gggctcatgt cggggctgat gcagatgctg
 240

ctgctgaagg tgtctgcaca catcaccgag cagctgggca tggccccagg tggcgagttc
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 360
 cccatccccg tcaccttcaa gagggccatc gcagcgctct ccttctggca gaaggtcagg
 420
 ctggcttggg gcctgtgctt cctgtcagac cccatcagca aggatgacgt ggaacgctgc
 480
 aagcagaagg acctactgga gcagatgatg gccgagatga ttggcgagtt cccagacctg
 540
 caccgcacca tcgtctcgga gcgcgacgtc tacctaacct acatgctgcg ccaggccgcg
 600
 cggcgctcg agctgcctcg
 620

<210> 4438
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 4438
 Xaa Cys Arg Val Tyr Val Val Gly Thr Ala His Phe Ser Asp Asp Ser
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 Lys Arg Asp Val Lys Thr Ile Arg Glu Val Gln Pro Asp Val Val
 20 25 30
 Val Val Glu Leu Cys Gln Tyr Arg Val Ser Met Leu Lys Met Asp Glu
 35 40 45
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln
 50 55 60
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu
 65 70 75 80
 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro
 85 90 95
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 100 105 110
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 115 120 125
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 130 135 140
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys
 145 150 155 160
 Lys Gln Lys Asp Leu Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu
 165 170 175
 Phe Pro Asp Leu His Arg Thr Ile Val Ser Glu Arg Asp Val Tyr Leu
 180 185 190
 Thr Tyr Met Leu Arg Gln Ala Ala Arg Arg Leu Glu Leu Pro
 195 200 205

<210> 4439
 <211> 2121
 <212> DNA
 <213> Homo sapiens

<400> 4439

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120
tctaaaatta actttttattg ttgagagacac atcttttagaa aagtttgtaa atatcaacat
180
ttaccatctt attttttctt ttgagaccaa gcatcacaga ccaaaagcca caaagtttac
240
aataatttat tattgttgca tgacatttgc cagtaaaata aattatagaa actatagagt
300
ctttataaac tattttgtat atcatattca cttcctaata cttactgcag taactgtatg
360
aaatttaatt agattacgtt ttagcattag tcagaagatt taaaaaatat gtaaaatgtt
420
ttcacagtac tttggattta taaaagaccc cattatttta acttttgcgc aacctgttg
480
aatgtataa aaaacctttt acaaaccaaa aggtggcgta aggttttact gagttgctga
540
agacatctta ctttcttgaa tttctactta acatccatgt ggtgcacttt ttcaggcatt
600
gtaataagt caaataaata atcaattatt gatttctaaa aatctatacc aatagacaat
660
actcaggctt ggaaatattt tgaacactca gatataaaaa ttcagtaaac aatttatgca
720
tggtattttt tctccctgtc ctccctctcc ctccctcctt cccctatcta tttgggtaaa
780
aaaaaaaaag ttcaacttcg atttaagtcc tagggcctga caaagtgacc ctggataaat
840
gtcatctcca gccatctggt ttcttttagtt ctcatcatat ctgtccaggc tcttctatca
900
gcatcaatcc tttcctgcag ggacggaaga gttttcaaat ccttgctgaa agcattttgt
960
tctcctctgt aacagcacag ggcatgaaat tgtttggagt ctttctaacc agtctgttca
1020
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1380
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1560
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1620

cagccagttc cagaacaacc actataccca caaccatacc aaccacaata ccaacaatat
 1680
 accttttaat atcatcagta actgcaggac atgattatgg aggtttgact ggcaaatacg
 1740
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 1800
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 1860
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 1920
 tgtgttcact gctgtttctg aataatagaa attcattcct ctccaaaagc aataaatttc
 1980
 aagcacattt tccaatacct gtggcatcac actactacca ctttttgaag aatcatcaaa
 2040
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 2100
 cttttcaatt gtcacttgat g
 2121

<210> 4440
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 4440
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 Leu Arg Phe Ala Phe Ile Asp Val Gly Ile Phe Arg Asn Ser Ala Pro
 20 25 30
 Arg Leu Ser Met Ile Gly Ala Asp Ser Ser Glu Glu Lys Phe Leu Arg
 35 40 45
 Arg Ile Gly Arg Phe Gly Tyr Gly Tyr Gly Pro Tyr Gln Pro Val Pro
 50 55 60
 Glu Gln Pro Leu Tyr Pro Gln Pro Tyr Gln Pro Gln Tyr Gln Gln Tyr
 65 70 75 80
 Thr Phe

<210> 4441
 <211> 2055
 <212> DNA
 <213> Homo sapiens

<400> 4441
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 gtcgtgggag ctgggagagg agggaaagag gggaaagagtc gtgggagctg gcagaggagg
 120
 gaaaggggga gccgaacgtg aagggcgaag ggcggggcgg ggcaggagag tcgggggtata
 180
 gagcaggcag gtgttaatgg catgggaagg aagagtaaga agtggggcaa gaaggtgtcg
 240
 cgggtacgagg ggaaggtgag actcaagaag gtgccggcta agaagctggt gccggcggtg
 300

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420
gagagtgtg tgagcgacag cttctttgag caagagcccg tggacacagt gagcagctg
480
tttcacatgc tgggtggactc acccatcgac ccgagcgaga aatacctggg cttcccttac
540
tacctgaaga tcaactactc ctgcgaggaa aagccctctg aggacctggg gcgcattggg
600
cacctgacgg ggctaaagcc cctgggtgctg gtcaccttcc agtccccagt caacttctac
660
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720
gggcctgggg gaggcgggag ggatcgcaac ctggcaggga tgaatatcaa cggcttctg
780
aagagagacc gggacaataa catccaattc actgtgggag aggagctctt caacctgatg
840
ccccagtact ttgtgggtgt ctcatcgagg cccttggtgg acactgtgga ccagtacact
900
gtgcttatcc tgggaggcat tcccaatgag aagtacgtcc tgatgactga caccagcttc
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aaggacttct ctctcggtga ggtgaacggt gtggggcaga tgctgagcat tgacagtgtc
1020
tgggtgggct cttctactg ccccatctt ggcttcacag ccaccatcta tgacactatt
1080
gccaccgaga gcacctctt cattcggcag aaccagctgg tctactattt tacaggcacc
1140
tataccacac tctatgagag aaaccgaggc agtggtagt gtgctgtggc tggaccacg
1200
cctggggagg gcacctggt gaaccctcc actgaaggca gttggattcg tgcctggcc
1260
agcgagtga tcaagaagct gtgccctgtg tatttccata gcaatggctc tgagtacata
1320
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1380
acctgctcca taatttggtc tgaatacatc ggggtgagt atactctact gctgctggtg
1440
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1620
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1680
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1800
tgacctctt ctacgaagac agcaaactgt accaggtgcc cggaggagct atgcggggac
1860
atcggggcac ccaggaggg ctgacccag ctcacctggc cctgccttcc cctgcagct
1920

gggtgtacctt atgaacaacc agaagggcca gctgggtcaag aggctcgtgc ccgtggagca
 1980
 gcttctgatg tatcaacagc acaccagcca ctatgacttg gagcggaag ggtgagaaga
 2040
 caccggacca tgaca
 2055

<210> 4442
 <211> 517
 <212> PRT
 <213> Homo sapiens

<400> 4442
 Met Gly Arg Lys Ser Lys Lys Trp Gly Lys Lys Val Ser Arg Tyr Glu
 1 5 10 15
 Gly Lys Val Arg Leu Lys Lys Val Pro Ala Lys Lys Leu Val Pro Ala
 20 25 30
 Trp Lys Glu Lys Val Leu Trp Ala Leu Leu Ala Val Leu Leu Ala Ser
 35 40 45
 Trp Arg Leu Trp Ala Ile Lys Asp Phe Gln Glu Cys Thr Trp Gln Val
 50 55 60
 Val Leu Asn Glu Phe Lys Arg Val Gly Glu Ser Gly Val Ser Asp Ser
 65 70 75 80
 Phe Phe Glu Gln Glu Pro Val Asp Thr Val Ser Ser Leu Phe His Met
 85 90 95
 Leu Val Asp Ser Pro Ile Asp Pro Ser Glu Lys Tyr Leu Gly Phe Pro
 100 105 110
 Tyr Tyr Leu Lys Ile Asn Tyr Ser Cys Glu Glu Lys Pro Ser Glu Asp
 115 120 125
 Leu Val Arg Met Gly His Leu Thr Gly Leu Lys Pro Leu Val Leu Val
 130 135 140
 Thr Phe Gln Ser Pro Val Asn Phe Tyr Arg Trp Lys Ile Glu Gln Leu
 145 150 155 160
 Gln Ile Gln Met Glu Ala Ala Pro Phe Arg Ser Lys Gly Gly Pro Gly
 165 170 175
 Gly Gly Gly Arg Asp Arg Asn Leu Ala Gly Met Asn Ile Asn Gly Phe
 180 185 190
 Leu Lys Arg Asp Arg Asp Asn Asn Ile Gln Phe Thr Val Gly Glu Glu
 195 200 205
 Leu Phe Asn Leu Met Pro Gln Tyr Phe Val Gly Val Ser Ser Arg Pro
 210 215 220
 Leu Trp His Thr Val Asp Gln Ser Pro Val Leu Ile Leu Gly Gly Ile
 225 230 235 240
 Pro Asn Glu Lys Tyr Val Leu Met Thr Asp Thr Ser Phe Lys Asp Phe
 245 250 255
 Ser Leu Val Glu Val Asn Gly Val Gly Gln Met Leu Ser Ile Asp Ser
 260 265 270
 Cys Trp Val Gly Ser Phe Tyr Cys Pro His Ser Gly Phe Thr Ala Thr
 275 280 285
 Ile Tyr Asp Thr Ile Ala Thr Glu Ser Thr Leu Phe Ile Arg Gln Asn
 290 295 300
 Gln Leu Val Tyr Tyr Phe Thr Gly Thr Tyr Thr Thr Leu Tyr Glu Arg
 305 310 315 320
 Asn Arg Gly Ser Gly Glu Cys Ala Val Ala Gly Pro Thr Pro Gly Glu


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          325          330          335
Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
          340          345          350
Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
          355          360          365
Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
          370          375          380
Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
          385          390          395
Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Leu Val Glu Ser Gly
          405          410          415
Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
          420          425          430
Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
          435          440          445
Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
          450          455          460
Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
          465          470          475          480
Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
          485          490          495
Trp Arg Ala Ala Thr Gly Ser Thr Ser Cys Ser Leu Pro Arg Ala Gly
          500          505          510
Arg Cys Thr Ser Ala
          515

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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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agatctggag ggagggttaag ggctgggttc atgctgactt catttctggt tggatggcct
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120
gggattgact aactcatcaa cgtggagttt aatgcccac caagtgcaga ccacgctcct
180
gttttgcgtc acctctgctg aagcttctctg caaacttgac tcctgcccag gtgccccag
240
ccccaaggct ggtctccagg aggttaaggcc cgccctgcag gcaacaccgg tgcttgggct
300
cctgctgagc agttctttcc tgcgagtaac agaaccaggg agggaggtgg gctgtggcct
360
cccctgcccc tacagtcac tcctgcagct cccaccatgc tggactcatc agcagcagag
420
caagtgaccc gactgacgct gaagctcttg ggacagaagc tggagcaaga acggcagaac
480
gtggaagggg gacctgaggg ctccacctcg agccaggaaa tgaggaccgg ccggacgatg
540
ccctgcagac tgctctgaag agaaggaggg accttctgca gagactccgg gaacaacacc
600
tcctggacga gctctctcgg gccacggcct ggagcggggc aagcagagga gccctcgagt
660

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cagccctgcc cccagagctg ccccccacgc gt
692

<210> 4444

<211> 108

<212> PRT

<213> Homo sapiens

<400> 4444

Met	Ser	Val	Cys	Leu	Leu	Val	Gly	Leu	Thr	Asn	Ser	Ser	Thr	Trp	Ser
1				5				10					15		
Leu	Met	Pro	Asn	Gln	Val	Gln	Thr	Thr	Leu	Leu	Phe	Cys	Val	Thr	Leu
			20				25					30			
Cys	Glu	Ala	Ser	Cys	Lys	Leu	Asp	Ser	Leu	Pro	Ser	Ala	Pro	Ser	Pro
	35					40					45				
Lys	Ala	Gly	Leu	Gln	Glu	Val	Arg	Pro	Ala	Leu	Gln	Ala	Thr	Pro	Val
	50				55					60					
Leu	Gly	Leu	Leu	Leu	Ser	Ser	Ser	Phe	Leu	Arg	Val	Thr	Glu	Pro	Gly
65				70				75					80		
Arg	Glu	Val	Gly	Cys	Gly	Leu	Pro	Cys	Pro	Tyr	Ser	His	Leu	Leu	Gln
			85				90						95		
Leu	Pro	Pro	Cys	Trp	Thr	His	Gln	Gln	Gln	Ser	Lys				
			100				105								

<210> 4445

<211> 901

<212> DNA

<213> Homo sapiens

<400> 4445

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cagccaaggc ccaatgccac tgaagatgga cctgccccct ggggacccag gaggcctacc
120
actcagctgt cccaggagt gccagaccc tcattcttat ccaggaccta ggagccctac
180
ccctggcctt ccctcatcag ccgtaaata tgatttactg ctgttaccat catcactgcc
240
ttcagtgacc aagggccttc caagggtgcca gctctggaac gaaggatgcc cttgggaggt
300
gatgatactc aggtacacgg gtgctcaaca gattgcttcc tcctatcctc agacggtctt
360
tgcatgcatg cagccattgg cactcccatt gtgtggaagg aaaccagccc agggtcacac
420
agctggtcag cagcaacata gctgggtctca aatctaaggt gcctgaccat gcctccatga
480
gggaccgcct ccaagggagg ttgatcctgg ctttggggag ctttctctgg gctgcacgaa
540
taacctccat tgttcgagac cccaaactct gtcacatct tcctttccct gtctctgctt
600
gggctatgat cacggtgact ctagcaaccc ttcatggaca ttataatact ctctgccatt
660
cacttttggg ctaatctgac ttcaaccccc attacttgg tctctccttt tacaaccaac
720

atggcaaaac cccatctcca caaaaattgg ataatttgat aattatcatt attgggtttc
 780
 tgagacgtta cacatttaac attctcttct gcacaagttg cctttgtgtg agtatactaa
 840
 ctttctgtag aggtatactt gtaatcacia ataagaataa attatataaa acaaaaaaaaa
 900
 a
 901

<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
 Met Leu Gln Trp Ile Thr Gln His Pro Ser Gln Gly Pro Met Pro Leu
 1 5 10 15
 Lys Met Asp Leu Pro Pro Gly Asp Pro Gly Val Leu Pro Leu Ser Cys
 20 25 30
 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His
 115 120 125
 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
 130 135 140

<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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 60
 agccaggecc cagacaccgc actcagggcc atggccgaca ggggcccgtg gaggggtggg
 120
 gtgggtgggct atggccgcct cggacagtcc cttgtgtccc gccttctggc tcagggatca
 180
 gaactgggccc tagaacttgt ttttgtgtgg aaccgtgacc ctggacgaat ggcagggagt
 240
 gtgccccctg ccctgcagct cgaagacctc actacacttg aggaaaggca ccctgacctt
 300
 gtggtagaag tggcccatcc aaaaataatc catgaatctg gggtagaaat cctccgtcat
 360
 gcaaaccctt tgagccttcg tgtcaccatg gccacacacc ccgatggctt ccggcttgag
 420

ggacccctgg ctgcagccca cagccctggg ccttgcaactg tgctctacga aggcctgtc
 480
 cgtgggctct gccctttgc cccgcgaaat tccaacacca tggcggcggc tgccctggct
 540
 gccccagcc tgggcttcga tgggggtgatt ggggtgctcg tggctgatac cagcctcacg
 600
 gacatgcacg tgggtggatgt agagctgagc ggacccccggg gccccacggg ccgaagcttt
 660
 gctgtgcaca cccgcagaga gaaccctgcc gagccaggcg cggtcaccgg ctccgccacc
 720
 gtcacggcct tctggcggag cctcctggcc tgctgccagc tcccctccag gccggggatc
 780
 catctctgct gagaagcctc ctccctcccg agacaagatc atctgcctgg cctctcacca
 840
 ccaccatccc acccctgccc tgccccactt ccccagggtc tcccttctga ctcagtaaag
 900
 atcacgcgtg cctccccccg caaaaaaaaa aaaaaaaaaa aaaaaaaaaa a
 951

<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

Arg	Cys	Pro	Lys	Ser	Ser	Gly	Cys	Pro	Gly	Leu	Val	Gln	Arg	Ala	Ala
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Ser	Ser	Pro	Gly	Ser	Gln	Ala	Pro	Asp	Thr	Ala	Leu	Arg	Ala	Met	Ala
			20					25					30		
Asp	Arg	Gly	Pro	Trp	Arg	Val	Gly	Val	Val	Gly	Tyr	Gly	Arg	Leu	Gly
		35					40					45			
Gln	Ser	Leu	Val	Ser	Arg	Leu	Ala	Gln	Gly	Ser	Glu	Leu	Gly	Leu	
		50				55				60					
Glu	Leu	Val	Phe	Val	Trp	Asn	Arg	Asp	Pro	Gly	Arg	Met	Ala	Gly	Ser
65					70					75				80	
Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu	Arg
				85					90					95	
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His	Glu
			100					105					110		
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg	Val
		115					120					125			
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu	Ala
		130				135					140				
Ala	Ala	His	Ser	Pro	Gly	Pro	Cys	Thr	Val	Leu	Tyr	Glu	Gly	Pro	Val
145					150					155				160	
Arg	Gly	Leu	Cys	Pro	Phe	Ala	Pro	Arg	Asn	Ser	Asn	Thr	Met	Ala	Ala
				165					170					175	
Ala	Ala	Leu	Ala	Ala	Pro	Ser	Leu	Gly	Phe	Asp	Gly	Val	Ile	Gly	Val
			180					185					190		
Leu	Val	Ala	Asp	Thr	Ser	Leu	Thr	Asp	Met	His	Val	Val	Asp	Val	Glu
		195					200					205			
Leu	Ser	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Arg	Ser	Phe	Ala	Val	His	Thr
		210				215						220			
Arg	Arg	Glu	Asn	Pro	Ala	Glu	Pro	Gly	Ala	Val	Thr	Gly	Ser	Ala	Thr

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<210> 4449
<211> 1365
<212> DNA
<213> Homo sapiens
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3637

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 1320
 acggcagagt agtaaagtct tccacgtgcc ttcaactgga aaaaa
 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 Arg Glu Arg Gly Ala Leu Asp Arg Ile Val Glu Tyr Leu Val Gly Asp
 20 25 30
 Gly Pro Gln Asn Arg Tyr Ala Leu Ile Cys Gln Gln Cys Phe Ser His
 35 40 45
 Asn Gly Met Ala Leu Lys Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
 145 150 155 160
 Thr Glu Asn Glu Glu Ala Ser Val Ile Glu Thr Asn Ser Thr Val Pro
 165 170 175
 Gly Ala Asp Ser Ile Pro Asp Pro Glu Leu Ser Gly Glu Ser Leu Thr
 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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 gcttgatct tctcgctctg tgaccagcct gggccacaca ctggtggaat ctgctctcac
 120
 gaggccttcc ctgcccagtc cccacaggac ctcacctagg gtggaggaga gcaacagcaa
 180
 gctcctggag tcagagagga agctgcagga ggagcgacac cgcaccgtgg tcttggagca
 240
 acatctggag aagatacgcc tggagccagg gaaggcatca gcctcccaga gacgagctcc
 300

caggacaaaa acagctccgc tcctggatgt atgctgtgta cggggccttg gctgtgatgg
360
gcacaatggg cccttggtac ctgctgctgc tgcttggtca ctgtgtgggc ctctatgtgg
420
cctcgctttt gggccagccc tggctctgtc ttggccttgg cttggccagc ctggcctcct
480
tcaagatgga cccctaate tcttggcaga gcgggtttgt aacaggcact tttgatcttc
540
aagaggtgct gtttcattggg ggcagcagct tcacagtgtc gcgttgacc agctttgcac
600
tgagagctg tgcccacct gaccgccact nactccttag ctgacctgt caagtacaac
660
ttctacctgc ctttcttctt cttcgggccc atcatgacct ttgatcgctt ccatgtctag
720
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780
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840
actatcecca gcgacctcaa gttcgccaac cgcctcccag acagtgccct cgctggccta
900
gcctattcaa acctggtgta tgactgggtg aaggcggccg tcctctttgg tgttgtcaac
960
actgtggcat gcctcgacca cctggacca cccagcctc ccaagtgcac caccgcactc
1020
tacgtctttg cggaaacgca ctttgaccgt ggcataacg actggctttg caaatatgtg
1080
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1140
acatttgcca tcaccacact gtggcttggg ccttggtgaca ttgtctacct gtggtcattc
1200
cttaactgct ttggcctcaa ctttgagctc tggatgcaaa aactggcaga gtggggggccc
1260
ctagcacgaa ttgaggcctc tctgtcagtg cagatgtccc gtaggggccg ggcctgttt
1320
ggagccatga acttctgggc catcatcatg tacaaccttg tgagcctgaa cagcctcaaa
1380
ttcacagagc tggttgcccg gcgcctgcta ctcacagggt tccccagac cacgctgtcc
1440
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1500
ctggaggagg agcagaagca ggacaaagag aagccggagt aggagggagc gggtagaggg
1560
atgggctctg ctcagctatt cttgggccag atggggcctg accgatagaa taaaagactt
1620
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1637

<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

Met Gly Ala Ala Ala Ser Gln Cys Cys Val Ala Pro Ala Leu His Trp

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      1           5           10           15
Arg Ala Val Pro Thr Leu Thr Ala Thr Xaa Ser Leu Ala Asp Leu Leu
      20           25           30
Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
      290          295          300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
      305          310          315          320
Lys Gln Asp Lys Glu Lys Pro Glu
      325

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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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agccatgatt atcctagttg tcaccttgca cacctgccat ccggtgccat ctctggctg
120
gcacatctat acccactctg gctctgaaag gcttgtcaac caaaaatggg cagctggggc
180

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taaggcatat ttaaacaaag gctccaaagg acccctttca cttgggtcta gcatccagcc
 240
 tctctctcag caaaggcagg attgtggtcc cttgtgtttt ctgaacaggg cccagggcag
 300
 ccaaggcatg ccactactgc agcactcaac cctctggtca cagtggagtc gccgggtccag
 360
 cctgaaatat tactacagag gagaaagacc cattcttctt atgttgctct atcttcacg
 420
 tccaaaaaca gtcctatgta gcttcagctg ctccgaaatc aggtcacaga acagcaggag
 480
 acattccttt ggcaaaaaag gacacgcttt tgtcctgtat cttatactgg taagtgaagc
 540
 tctgatcccg gtggactgcg ggctgcatg gtctcctcca caggatcctc agctacagag
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 660
 taccttctct gtgcccttca cgcgt
 685

<210> 4454
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 4454
 Met Ile Ile Leu Val Val Thr Leu His Thr Cys His Pro Val Pro Ser
 1 5 10 15
 Pro Gly Trp His Ile Tyr Thr His Ser Gly Ser Glu Arg Leu Val Asn
 20 25 30
 Gln Lys Trp Ala Ala Gly Ala Lys Ala Tyr Leu Asn Lys Gly Ser Lys
 35 40 45
 Gly Pro Leu Ser Leu Gly Ser Ser Ile Gln Pro Leu Ser Gln Gln Arg
 50 55 60
 Gln Asp Cys Gly Pro Leu Cys Phe Leu Asn Arg Ala Gln Gly Ser Gln
 65 70 75 80
 Gly Met Pro Ser Leu Gln His Ser Thr Leu Trp Ser Gln Trp Ser Arg
 85 90 95
 Arg Ser Ser Leu Lys Tyr Tyr Tyr Arg Gly Glu Arg Pro Ile Leu Ala
 100 105 110
 Met Leu Leu Tyr Leu Pro Arg Pro Lys Thr Val Leu Cys Ser Phe Ser
 115 120 125
 Cys Ser Glu Ile Arg Ser Gln Asn Ser Arg Arg His Ser Phe Gly Lys
 130 135 140
 Lys Gly His Ala Phe Val Leu Tyr Leu Ile Leu Val Ser Glu Ala Leu
 145 150 155 160
 Ile Pro Val Asp Cys Gly Leu Arg Trp Ser Pro Pro Gln Asp Pro Gln
 165 170 175
 Leu Gln Arg Gln Arg Arg Met Lys Glu Glu Gln Pro Pro Gln Asp Leu
 180 185 190
 Leu His Trp Glu Pro His Pro Thr Phe Ser Val Pro Phe Thr Arg
 195 200 205

<210> 4455
 <211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 ggattaagcc acagcccggg gaaccctcgc accattccca tgaaggacca cgatgccatc
 120
 aagctgttca ttgggcagat ccccgcaac ctggatgaga aggacctcaa gccctcttc
 180
 gaggagtttg gcaaaatcta cgagcttacg gttctgaagg acaggttcac aggcattcac
 240
 aaaggctgcg ccttcctcac ctactgcgag cgtgagtcag cgctgaaggc ccagagcgcg
 300
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 360
 agcgagagcc gaggagatag tagctgcctg cgccagcccc cttcacatag aaaactcttc
 420
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 480
 gggaacatcg aggagtgcac catcctgcgc gggcccgacg gcaacagcaa ggggtgcgcc
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 720
 atccctttcg gggcctacgg cgcctacgct caggcactga tgcagcagca agcggccctg
 780
 atggcatcag tcgcgcaggg cggctacctg aaccccatgg ctgccttcgc tgccgccag
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 atgcagcaga tggcgccct caacatgaat ggctggcg cc
 882

<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

Met	Lys	Asp	His	Asp	Ala	Ile	Lys	Leu	Phe	Ile	Gly	Gln	Ile	Pro	Arg
1				5					10					15	
Asn	Leu	Asp	Glu	Lys	Asp	Leu	Lys	Pro	Leu	Phe	Glu	Glu	Phe	Gly	Lys
			20					25					30		
Ile	Tyr	Glu	Leu	Thr	Val	Leu	Lys	Asp	Arg	Phe	Thr	Gly	Met	His	Lys
		35					40					45			
Gly	Cys	Ala	Phe	Leu	Thr	Tyr	Cys	Glu	Arg	Glu	Ser	Ala	Leu	Lys	Ala
	50					55				60					
Gln	Ser	Ala	Leu	His	Glu	Gln	Lys	Thr	Leu	Pro	Gly	Met	Asn	Arg	Pro
65				70					75					80	
Ile	Gln	Val	Lys	Pro	Ala	Asp	Ser	Glu	Ser	Arg	Gly	Asp	Ser	Ser	Cys
				85				90					95		
Leu	Arg	Gln	Pro	Pro	Ser	His	Arg	Lys	Leu	Phe	Val	Gly	Met	Leu	Asn

```

          100          105          110
Lys Gln Gln Ser Glu Asp Asp Val Arg Arg Leu Phe Glu Ala Phe Gly
          115          120          125
Asn Ile Glu Glu Cys Thr Ile Leu Arg Gly Pro Asp Gly Asn Ser Lys
          130          135          140
Gly Cys Ala Phe Val Lys Tyr Ser Ser His Ala Glu Ala Gln Ala Ala
145          150          155          160
Ile Asn Ala Leu His Gly Ser Gln Thr Met Pro Gly Ala Ser Ser Ser
          165          170          175
Leu Val Val Lys Phe Ala Asp Thr Asp Lys Glu Arg Thr Met Arg Arg
          180          185          190
Met Gln Gln Met Ala Gly Gln Met Gly Met Phe Asn Pro Met Ala Ile
          195          200          205
Pro Phe Gly Ala Tyr Gly Ala Tyr Ala Gln Ala Leu Met Gln Gln Gln
          210          215          220
Ala Ala Leu Met Ala Ser Val Ala Gln Gly Gly Tyr Leu Asn Pro Met
225          230          235          240
Ala Ala Phe Ala Ala Ala Gln Met Gln Gln Met Ala Ala Leu Asn Met
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Asn Gly Leu Ala Ala
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<210> 4457
 <211> 1491
 <212> DNA
 <213> Homo sapiens

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<400> 4457
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120
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180
cccctgcagc tgggtgtacct tatgaacaac cagaagggcc agctggtcaa gaggctcggtg
240
cccgaggagc agcttctgat gtatcaacag cacaccagcc actatgactt ggagcggaaa
300
gggggctact tgatgtcttc cttcatcgac ttctgcccct tctcggtgat gcgcctgcgg
360
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420
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480
tactacctgc tgtggctgca ctccgtgtac gacaaggatt actacttctt cttggcgagc
540
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600
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660
ttcgccatct tcctgtcggc gcagggccac tcgttcggga cgcagtcaga actcggtctg
720
cgcgggacca gagtggagcc cgaagggcgg ggcgagggt accagaatct gggagccttg
780

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 840
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 900
 ctattttcga ttacgctcaa ggataaaaag ctttgctatg accaaggcat tagtggacat
 960
 caccttatgg agacttccat gacgggtcaat gtgaggtcca agcctggagg ggagggcaag
 1020
 cgcttggcct tcgacatcac ctacacgctg gaatacagcc gcctgaagaa caaacactac
 1080
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 1140
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 1260
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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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Gln	Leu	Leu	Met	Tyr	Gln	Gln	His	Thr	Ser	His	Tyr	Asp	Leu	Glu	Arg
			20					25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
			35				40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
	50					55					60				
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65				70						75				80	
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85					90						95	
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
			100					105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
			115				120					125			
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
			130				135					140			
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
145				150						155				160	
Gln	Gly	His	Ser	Phe	Arg	Thr	Gln	Ser	Glu	Leu	Gly	Leu	Arg	Gly	Thr
				165						170				175	
Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

180 185 190
 Trp Gly Ala Gly Thr Pro Ser Glu Gly Arg Gly Leu Ser Val Asp Val
 195 200 205
 Gly Val Val Leu Ala Asp Pro Gly Cys Ile Glu Ala Ser Val Lys Gln
 210 215 220
 Glu Val Leu Ile Asn Arg Asn Ser Val Leu Phe Ser Ile Thr Leu Lys
 225 230 235 240
 Asp Lys Lys Leu Cys Tyr Asp Gln Gly Ile Ser Gly His His Leu Met
 245 250 255
 Glu Thr Ser Met Thr Val Asn Val Arg Ser Lys Pro Gly Gly Glu Gly
 260 265 270
 Lys Arg Leu Ala Phe Asp Ile Thr Tyr Thr Leu Glu Tyr Ser Arg Leu
 275 280 285
 Lys Asn Lys His Tyr Phe Asp Cys Val Asn Val Asn Pro Glu Met Pro
 290 295 300
 Cys Phe Leu Phe Arg Asp Ser Val Tyr Val Leu Leu Val Val Gly Gly
 305 310 315 320
 Gly Pro Thr Leu Asp Ser Leu Lys Asp Tyr Ser Glu Asp Glu Ile Tyr
 325 330 335
 Arg Phe Asn Ser Pro Leu Asp Lys Thr Asn Ser Leu Ile Trp Thr Thr
 340 345 350
 Arg Thr Thr Arg Thr Thr Lys Asp Ser Ala Phe His Ile Met Ser His
 355 360 365
 Glu Ser Pro Gly Ile Glu Trp Leu Cys Leu Glu Asn Ala Pro Cys Tyr
 370 375 380
 Asp Asn Val Pro Gln Gly Ile Phe Ala Pro Glu Phe Phe Phe Lys Val
 385 390 395 400
 Leu Val Ser Asn Arg
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<210> 4459
 <211> 1114
 <212> DNA
 <213> Homo sapiens

<400> 4459
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 180
 ctttggagac cagcccatgg ggacagagtc agaggcactg ggtgtaaaaa aagagcgagc
 240
 gtgtggcaca tttgggtccat tgtcatgtgt gggatatggca ggaggagggg gtaatctaga
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 360
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 480
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 540

agacagaacc agcgagagac accagggagc tcagcagcat caggacagag gccagcgtg
 600
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 660
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 720
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 780
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 960
 aatggccgcg cccctcctgg ccctctgact cggcgattgg ccggccgtgc tcgcactcca
 1020
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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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			20					25					30		
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
	35					40					45				
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50					55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65				70					75					80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85					90						95	
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
			100					105						110	
Gly	Leu	Val	Lys	Arg	Val	Arg	Asp	Val							
		115						120							

<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 120

tacctggcag acttcccca ggaactgtcc atcaaataca tggccagatc gttccgtggg
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 gctgtggcta ttgtcacaga gacggaggag gtgggctgcc cgccttctt cccattccc
 240
 tctctgcca cccccaacc ccagggggcc ctctttcccc cgtcacagta aaggagccaa
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 360
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 488

<210> 4462
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 4462
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 Ser Ser Asn Lys Glu Asn Phe Ile Tyr Leu Ala Asp Phe Pro Lys Glu
 35 40 45
 Leu Ser Ile Lys Tyr Met Ala Arg Ser Phe Arg Gly Ala Val Ala Ile
 50 55 60
 Val Thr Glu Thr Glu Glu Val Gly Cys Pro Ala Leu Leu Pro Ile Pro
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 Ser Leu Pro Thr Pro Lys Pro Gln Gly Pro Leu Phe Pro Pro Ser Gln
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<210> 4463
 <211> 2662
 <212> DNA
 <213> Homo sapiens

<400> 4463
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 180
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 240
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 420

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2040

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 2662

<210> 4464
 <211> 519
 <212> PRT
 <213> Homo sapiens

<400> 4464
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 Val Arg Asp Val Ala Lys Met Leu Pro Thr Leu Gly Gly Glu Glu Gly
 35 40 45
 Val Ser Arg Ile Tyr Ala Asp Pro Thr Lys Arg Leu Glu Leu Tyr Phe
 50 55 60
 Arg Pro Lys Asp Pro Tyr Cys His Pro Val Cys Ala Asn Arg Phe Ser
 65 70 75 80
 Thr Ser Ser Leu Leu Leu Arg Ile Arg Lys Arg Thr Arg Arg Gln Lys
 85 90 95
 Gly Val Leu Gly Thr Glu Ala His Ser Glu Val Thr Phe Asp Met Glu
 100 105 110
 Ile Leu Gly Ile Ile Ser Thr Ile Tyr Lys Phe Gln Gly Met Ser Asp
 115 120 125
 Phe Gln Tyr Leu Ala Val His Thr Glu Ala Gly Gly Lys His Thr Ser
 130 135 140
 Met Tyr Asp Lys Val Leu Met Leu Arg Pro Glu Lys Glu Ala Phe Phe
 145 150 155 160
 His Gln Glu Leu Pro Leu Tyr Ile Pro Pro Ile Phe Ser Arg Leu
 165 170 175
 Asp Ala Pro Val Asp Tyr Phe Tyr Arg Pro Glu Thr Gln His Arg Glu
 180 185 190
 Gly Tyr Asn Asn Pro Pro Ile Ser Gly Glu Asn Leu Ile Gly Leu Ser

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      195              200              205
Arg Ala Arg Arg Pro His Asn Ala Ile Phe Val Asn Phe Glu Asp Glu
  210              215              220
Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg
  225              230              235              240
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
      245              250              255
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
      260              265              270
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
      275              280              285
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
      290              295              300
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
  305              310              315              320
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
      325              330              335
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
      340              345              350
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
      355              360              365
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
      370              375              380
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
  385              390              395              400
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
      405              410              415
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
      420              425              430
Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
      435              440              445
Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
      450              455              460
Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu
  465              470              475              480
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu
      485              490              495
Glu Glu Glu Asp Phe Lys Pro Ser Asp Gly Ser Glu Asn Glu Met Glu
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Thr Glu Ile Leu Asp Tyr Val
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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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120
ngcgccgtgg ggctagtgga cgccgtgaag gccaccgacc agtactgcgc ccgcctccgc
180

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3650

caggccggtt cggccgcgcc ccggccaccg cgggcccagc agccacagca gccatcccaa
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 360
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 420
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 1020
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 1140
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 1260
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 1291

<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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 20 25 30
 Asp Thr Ile Gly Gln Met Arg Arg Xaa Ala Val Gly Leu Val Asp Ala
 35 40 45
 Val Lys Ala Thr Asp Gln Tyr Cys Ala Arg Leu Arg Gln Ala Gly Ser
 50 55 60
 Ala Ala Pro Arg Pro Pro Arg Ala Gln Gln Pro Gln Gln Pro Ser Gln

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<210> 4468
<211> 170
<212> PRT
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<213> Homo sapiens

<400> 4468

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 Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
 20 25 30
 Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
 35 40 45
 Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
 50 55 60
 Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
 65 70 75 80
 Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
 85 90 95
 Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
 100 105 110
 Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
 115 120 125
 Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
 130 135 140
 Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
 145 150 155 160
 Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
 165 170

<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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 gtgcttttaga ggccctctgc gagccttggt tttgaagctt taacaggcct ccctcccatc
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 tcacaatttc aggaaaatgg ctaccctgtg aggagagaaa gccacccaat gatgctgata
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 409

<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

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      1             5             10             15
Ala Ser Trp Val Leu Asn Val Ala Phe Cys Pro Asp Asp Thr His Phe
      20             25             30
Val Ser Arg Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu
      35             40             45
Glu Ser Arg Arg Trp Thr Thr
      50             55

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<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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1200

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 1771

<210> 4472
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4472
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 Ala Pro Leu Pro Gly Leu Ser Ala Pro Gly Arg Leu Phe Asp Gln Arg
 20 25 30
 Phe Gly Glu Gly Leu Leu Glu Ala Glu Leu Ala Ala Leu Cys Pro Thr
 35 40 45
 Thr Leu Ala Pro Tyr Tyr Leu Arg Ala Pro Ser Val Ala Leu Pro Val
 50 55 60
 Ala Gln Val Pro Thr Asp Pro Gly His Phe Ser Val Leu Leu Asp Val
 65 70 75 80
 Lys His Phe Ser Pro Glu Glu Ile Ala Val Lys Val Val Gly Glu His
 85 90 95
 Val Glu Val His Ala Arg His Glu Glu Arg Pro Asp Glu His Gly Phe
 100 105 110
 Val Ala Arg Glu Phe His Arg Arg Tyr Arg Leu Pro Pro Gly Val Asp
 115 120 125
 Pro Ala Ala Val Thr Ser Ala Leu Ser Pro Glu Gly Val Leu Ser Ile
 130 135 140
 Gln Ala Ala Pro Ala Ser Ala Gln Ala Pro Pro Pro Ala Ala Ala Lys
 145 150 155 160

<210> 4473
 <211> 1255
 <212> DNA
 <213> Homo sapiens

<400> 4473

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 ttgggttaagg aaatgaccaa ccagtagcgtt attctcttca aacaagagca agcccatgat
 180
 gatgccattt ggtagcttgc ttgggggaca aacaagaagg aaaactctga gacagtgggc
 240
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 420
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 480
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 540
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 660
 attgcaactg gaaaacttct gcataccctg gaaggccatg ccattgcccatt tcgctccttg
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 1020
 gaaattcaca tctatgattg tccaatttaa acatcaaagt ctccaggctt atgctgcaaa
 1080
 gagaatgtac ggattgatca tgacattcct taccttctta ggcttgttta aaagaaatat
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<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

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Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn
		20						25				30		Ser
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp
														Lys

35 40 45
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
 275 280 285
 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
 290 295 300
 Ile
 305

<210> 4475
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 4475
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 180
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 240
 ctgccctcag acctcctct ggggtgcagcc cgttccact tgagagggag gtgggtcttca
 300
 ctttaggggg taggcacatc cctgtttgcg ccttgccccg acagcctcgt caatgccag
 360

ccacttctga gggctggagg gacaggaact tcctttcttc cccctttctg tctcctcgcg
420
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475

<210> 4476
<211> 106
<212> PRT
<213> Homo sapiens

<400> 4476
Met Cys Leu Pro Pro Lys Val Lys Thr Thr Ser Leu Ser Ser Gly Asn
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20 25 30
Ser Arg Arg Ser Ser Ser Ser Gln Pro Leu Pro Gln Ser Ala Arg Thr
35 40 45
Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
50 55 60
Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
65 70 75 80
Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
85 90 95
Tyr Pro Leu Pro Ser Ser Arg Val His Ala
100 105

<210> 4477
<211> 1153
<212> DNA
<213> Homo sapiens

<400> 4477
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120
tagggcaggg cagatgggat atgacgaatg gactgccagc tggatacaag gatgctcacc
180
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240
gaggacacca ggggaaaagt gtggcatctc agggaaatac agccctgggc tgtgtctaca
300
cacaccatga gagtgtgat gggggcgcaa tagtcttgaa aatgtataaa gtgtccagga
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420
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660

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 780
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 1020
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 1153

<210> 4478
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4478
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 Lys Thr Glu Tyr Gln Glu Ser Glu Phe Leu Ser Pro Ala Tyr Ser Asp
 20 25 30
 Lys Pro Leu Gly Leu Cys Glu Asn Ala Asp Val Leu Asp Arg Arg Leu
 35 40 45
 Trp Glu Gly Asn Met Lys Glu Glu Asn Asn Asn Glu Ser Lys Ser Thr
 50 55 60
 Ser Ile Pro Gly His Phe Ile His Phe Gln Asp Tyr Cys Ala Pro Ile
 65 70 75 80
 Ser Thr Leu Met Val Cys Val Asp Thr Ala Gln Gly Cys Ile Ser Leu
 85 90 95
 Arg Cys His Thr Phe Pro Leu Val Ser Ser Asp Ile Met Pro Gln Phe
 100 105 110
 Leu Gln Ser His Ile Lys
 115

<210> 4479
 <211> 2158
 <212> DNA
 <213> Homo sapiens

<400> 4479
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 120
 ggcgggccac gcgcagcaca gggagagatg agcagcacca gcagtaagag ggctccgacc
 180

acggcaaccc agaggctgaa gcaggactac cttcgatta agaaagaccc ggtgccttac
240
atctgtgccg agcccctccc ttcgaatatt ctcgagtggc actatgtcgt ccgaggccca
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360
cctttcaaac ctcccagtat ctatatgatc actcccaacg ggaggtttaa gtgcaacacc
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 1980
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 2158

<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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 20 25 30
 Asp Tyr Gly Glu Pro Glu Arg Gly Gly Gly Pro Arg Ala Ala Gln Gly
 35 40 45
 Glu Met Ser Ser Thr Ser Ser Lys Arg Ala Pro Thr Thr Ala Thr Gln
 50 55 60
 Arg Leu Lys Gln Asp Tyr Leu Arg Ile Lys Lys Asp Pro Val Pro Tyr
 65 70 75 80
 Ile Cys Ala Glu Pro Leu Pro Ser Asn Ile Leu Glu Trp His Tyr Val
 85 90 95
 Val Arg Gly Pro Glu Met Thr Pro Tyr Glu Gly Gly Tyr Tyr His Gly
 100 105 110
 Lys Leu Ile Phe Pro Arg Glu Phe Pro Phe Lys Pro Pro Ser Ile Tyr
 115 120 125
 Met Ile Thr Pro Asn Gly Arg Phe Lys Cys Asn Thr Arg Leu Cys Leu
 130 135 140
 Ser Ile Thr Asp Phe His Pro Asp Thr Trp Asn Pro Ala Trp Ser Val
 145 150 155 160
 Ser Thr Ile Leu Thr Gly Leu Leu Ser Phe Met Val Glu Lys Gly Pro
 165 170 175
 Thr Leu Gly Ser Ile Glu Thr Ser Asp Phe Thr Lys Arg Gln Leu Ala
 180 185 190
 Val Gln Ser Leu Ala Phe Asn Leu Lys Asp Lys Val Phe Cys Glu Leu
 195 200 205
 Phe Pro Glu Val Val Glu Glu Ile Lys Gln Lys Gln Lys Ala Gln Asp
 210 215 220
 Glu Leu Ser Ser Arg Pro Gln Thr Leu Pro Leu Pro Asp Val Val Pro
 225 230 235 240
 Asp Gly Glu Thr His Leu Val Gln Asn Gly Ile Gln Leu Leu Asn Gly
 245 250 255
 His Ala Pro Gly Ala Val Pro Asn Leu Ala Gly Leu Gln Gln Ala Asn
 260 265 270
 Arg His His Gly Leu Leu Gly Gly Ala Leu Ala Asn Leu Phe Val Ile

```

                275                280                285
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    290                295                300
Ile Ala Gln Glu
305

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<210> 4481
<211> 320
<212> DNA
<213> Homo sapiens

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<400> 4481
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120
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180
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240
gacctttgtc ctttccttc cctgcctctc tgtgcgtcgc tggactcgcc acgggagttc
300
tcacgaatgg gcaccaatt
320

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<210> 4482
<211> 101
<212> PRT
<213> Homo sapiens

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<400> 4482
Met Gly Cys Ala Trp Arg Leu Gly Gly Cys Ile Trp Thr Ala Ser Gly
 1          5          10          15
Trp Gly Leu Gly Thr Ser Cys Cys Ala Ala Arg Lys Gln Asp Ser Ala
    20          25          30
Cys Pro Pro Thr Trp Gly Gly Asp Pro Gly Leu Gly Phe Val Gly Ala
    35          40          45
Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
    50          55          60
Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
65          70          75          80
Leu Pro Leu Pro Leu Cys Ala Ser Leu Asp Ser Pro Arg Glu Phe Ser
    85          90          95
Arg Met Gly Thr Gln
    100

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<210> 4483
<211> 1852
<212> DNA
<213> Homo sapiens

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<400> 4483
nnggttgagg cgtgccggga gctgagttat agctgtgact tctgccctgc caggccgcac
60

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acaagctggc tgaccegggt tgtaaaaatg gaatttcaag cagtagtgat ggcagtaggt
120
ggaggatctc ggatgacaga cctaacttcc agcattccca aacctctgct tccagttggg
180
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240
attgtgggtta caaccagggg tgttcaaaag gctctatgtg cagaattcaa gatgaaaatg
300
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720
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780
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840
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1680

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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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		20						25					30		
Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe
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Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys
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65					70				75					80	
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			85					90						95	
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Ala	Leu	His	Glu	Val	Val	Asp	Leu	Phe	Arg	Ala	Tyr	Asp	Ala	Ser	Leu
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Ala	Met	Leu	Met	Arg	Lys	Gly	Gln	Asp	Ser	Ile	Glu	Pro	Val	Pro	Gly
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			245						250					255	
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		275				280						285			
Arg	Trp	Glu	Asp	Leu	Ser	Arg	Ser	Gln	Val	Arg	Cys	Tyr	Val	His	Ile
		290				295					300				
Met	Lys	Glu	Gly	Leu	Cys	Ser	Arg	Val	Ser	Thr	Leu	Gly	Leu	Tyr	Met
305					310					315				320	
Glu	Ala	Asn	Arg	Gln	Val	Pro	Lys	Leu	Leu	Ser	Ala	Leu	Cys	Pro	Glu


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          325          330          335
Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
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Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
          385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
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<210> 4485
 <211> 513
 <212> DNA
 <213> Homo sapiens

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420
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513

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<210> 4486
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4486
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20      25      30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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3665

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          35          40          45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
          50          55          60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65          70          75          80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
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Pro Met Pro Asn
          100

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<210> 4487
 <211> 387
 <212> DNA
 <213> Homo sapiens

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120
ggaaagtttg atattttatt caatagagtt caagcaattc agaagaaaag tggaaacttt
180
gatctgctgt tgtgtgtagg aaatttcttt ggctccaccc aagatgctga atgggaggag
240
tataagactg gcatcaagaa agctcctatt cagacatatg tgcttgggtgc taataaccag
300
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387

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<210> 4488
 <211> 129
 <212> PRT
 <213> Homo sapiens

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<400> 4488
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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
20     25     30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
35     40     45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
50     55     60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65     70     75     80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
85     90     95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
100    105    110
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
115    120    125
Gly

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<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

<400> 4489
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120
gagccagggtg cctatatctt tctccagaac cccccaggtc tgcctagcat tgctgtctgc
180
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240
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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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			20					25					30		
Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
		35				40						45			
Gln	Asn	Pro	Pro	Gly	Leu	Pro	Ser	Ile	Ala	Val	Cys	Trp	Phe	Val	Gly
	50				55						60				
Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
65				70					75					80	
Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
			85					90					95		
Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

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Arg Ala Val Thr Val Tyr Asp Lys Pro Ala Ser Phe Phe Lys Glu Thr
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Pro Leu Asp Leu Gln His Arg Leu Phe Met Lys Leu Gly Ser Met His
145          150          155          160
Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu Asp Pro Val Thr Glu Arg
          165          170          175
Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser Gly Leu Val Thr Arg Leu
          180          185          190
Arg Glu Arg Pro Ala Leu Leu Val Ser Ser Thr Ser Trp Thr Glu Asp
          195          200          205
Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu Glu Lys Phe Glu Gln Leu
          210          215          220
Thr Leu Asp Gly His Asn Leu Pro Ser Leu Val Cys Val Ile Thr Gly
225          230          235          240
Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg Leu Ile His Gln Lys His
          245          250          255
Phe Gln His Ile Gln Val Cys Thr Pro Trp Leu Glu Ala Glu Asp Tyr
          260          265          270
Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly Val Cys Leu His Thr Ser
          275          280          285
Ser Ser Gly Leu Asp Leu Pro Met Lys Val Val Asp Met Phe Gly Cys
          290          295          300
Cys Leu Pro Val Cys Ala Val Asn Phe Lys Cys Leu His Glu Leu Val
305          310          315          320
Lys His Glu Glu Asn Gly Leu Val Phe Glu Asp Ser Glu Glu Leu Ala
          325          330          335
Ala Gln Leu Gln Met Leu Phe Ser Asn Phe Pro Asp Pro Ala Gly Lys
          340          345          350
Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu Ser Gln Gln Leu Arg Trp
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Asp Glu Ser Trp Val Gln Thr Val Leu Pro Leu Val Met Asp Thr
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<210> 4491
 <211> 6712
 <212> DNA
 <213> Homo sapiens

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 360

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<212> PRT

<213> Homo sapiens

<400> 4492

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Leu Val His Leu Ala Leu Arg Phe Lys Cys Asn Gln Asn Cys Pro Gln
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Gly Pro Ala Ile Lys Ala Leu Ser Leu Ser Thr Phe Trp Tyr Leu Val
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<210> 4498
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 4498
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 35 40 45
 Pro Gly Asn Pro Val Gln Gly Gln Cys Gly Glu Glu Glu Asp Ser Leu

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Trp Pro Leu Ser Ala Arg Arg Glu Lys Gly Leu Asn Gln Glu Pro Gln		80
	85	90
Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Glu Ser Pro		95
	100	105
Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu		110
	115	120
Leu Ala Ala Ala Leu Gln Gln Ser Gln Glu Leu Ala Lys Leu Gly Thr		125
	130	135
Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr		140
145	150	155
Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg		160
	165	170
Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp		175
	180	185
Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe		190
	195	200
Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala		205
	210	215
Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala		220
225	230	235
Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg		240
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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<210> 4500
<211> 91
<212> PRT
<213> Homo sapiens

<400> 4500
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35 40 45
Ser Leu Cys Gly Asp Trp Leu Gln Gly Leu His Arg Phe Val Ala Arg
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Glu Lys Ile Met Ser Val Leu Ser Glu Arg Gly Leu Phe Arg Gly Leu
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Gln Asn His Pro Met Val Leu Pro Ile Cys Arg
85 90

<210> 4501
<211> 1866
<212> DNA
<213> Homo sapiens

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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			20				25					30			
Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
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Ala	Ala	Pro	Gly	Gln	Arg	Leu	Pro	Glu	Ser	Leu	Arg	Ala	Thr	Tyr	Arg
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660

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<210> 4504

<211> 250

<212> PRT

<213> Homo sapiens

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Leu Lys Lys Lys Ser Asp Ala Leu Thr Leu Arg Ph Arg Gln Ile Leu
      35      40      45
Lys Lys Ile Ile Glu Thr Lys Met Leu Met Gly Glu Val Met Arg Glu
      50      55      60
Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser
      65      70      75      80
Thr Thr Val Ile Gln Asn Val Asn Lys Ala Gln Val Lys Ile Arg Ala
      85      90      95
Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
      100     105     110
His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly
      115     120     125
Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu
      130     135     140
Leu Val Glu Leu Ala Ser Leu Gln Thr Ser Phe Val Thr Leu Asp Glu
      145     150     155     160
Ala Ile Lys Ile Thr Asn Arg Arg Val Asn Ala Ile Glu His Gly Glu
      165     170     175
Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr
      180     185     190
Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile
      195     200     205
Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu
      210     215     220
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
      35           40           45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
      50           55           60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
      65           70           75           80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
      85           90           95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
      100           105           110
Ser Ser Thr Asp Ser Leu Ile Lys Ile
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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<210> 4508

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4508

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3690

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 Met Ala Met Asn Gly Lys Ser Val Asp Gly Arg Gln Ile Arg Val Asp
 65 70 75 80
 Gln Ala Gly Lys Ser Ser Asp Asn Arg Ser Arg Gly Tyr Arg Gly Gly
 85 90 95
 Ser Ala Gly Gly Arg Gly Phe Phe Arg Gly Gly Arg Gly Arg Gly Arg
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 Gly Phe Ser Arg Gly Gly Gly Asp Arg Gly Tyr Gly Gly Asn Arg Phe
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 Glu Ser Arg Ser Gly Gly Tyr Gly Gly Ser Arg Asp Tyr Tyr Ser Ser
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 <213> Homo sapiens

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 <213> Homo sapiens

<400> 4516
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 Ala Arg Ala Arg Ala Arg Ala Ala Leu Ala Arg Ala Ala Leu Ala Pro
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 Arg Leu Pro His Asn Leu Ser Leu Glu Leu Val Val Ala Ala Pro Pro
 65 70 75 80
 Ala Arg Asp Pro Ala Ser Leu Thr Arg Gly Leu Cys Gln Ala Leu Val
 85 90 95
 Pro Pro Gly Val Ala Ala Leu Leu Ala Phe Pro Glu Ala Arg Pro Glu
 100 105 110
 Leu Leu Gln Leu His Phe Leu Ala Ala Ala Thr Glu Thr Pro Val Leu
 115 120 125
 Ser Leu Leu Arg Arg Glu Ala Arg Ala Pro Leu Gly Ala Pro Asn Pro
 130 135 140
 Phe His Leu Gln Leu His Trp Ala Ser Pro Leu Glu Thr Leu Leu Asp
 145 150 155 160
 Val Leu Val Ala Val Leu Gln Ala His Ala Trp Glu Asp Val Gly Leu
 165 170 175
 Ala Leu Cys Arg Thr Gln Asp Pro Gly Gly Leu Val Ala Leu Trp Thr
 180 185 190
 Ser Arg Ala Gly Arg Pro Pro Gln Leu Val Leu Asp Leu Ser Arg Arg
 195 200 205
 Asp Thr Gly Asp Ala Gly Leu Arg Ala Arg Leu Ala Pro Met Ala Ala
 210 215 220
 Pro Val Gly Gly Glu Ala Pro Val Pro Ala Ala Val Leu Leu Gly Cys
 225 230 235 240
 Asp Ile Ala Arg Ala Arg Arg Val Leu Glu Ala Val Pro Pro Gly Pro
 245 250 255
 His Trp Leu Leu Gly Thr Pro Leu Pro Pro Lys Ala Leu Pro Thr Ala
 260 265 270
 Gly Leu Pro Pro Gly Leu Leu Ala Leu Gly Glu Val Ala Arg Pro Pro
 275 280 285
 Leu Glu Ala Ala Ile His Asp Ile Val Gln Leu Val Ala Arg Ala Leu

290 295 300
 Gly Ser Ala Ala Gln Val Gln Pro Lys Arg Ala Leu Leu Pro Ala Pro
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 Val Asn Cys Gly Asp Leu Gln Pro Ala Gly Pro Glu Ser Pro Gly Arg
 325 330 335
 Phe Leu Ala Arg Phe Leu Ala Asn Thr Ser Phe Gln Gly Arg Thr Gly
 340 345 350
 Pro Val Trp Val Thr Gly Ser Ser Gln Val His Met Ser Arg His Phe
 355 360 365
 Lys Val Trp Ser Leu Arg Arg Asp Pro Arg Gly Ala Pro Ala Trp Ala
 370 375 380
 Thr Val Gly Ser Trp Arg Tyr Gly Gln Leu Asp Leu Glu Pro Gly Gly
 385 390 395 400
 Ala Ser Ala Trp Pro Pro Pro Pro Gln Gly Ala Gln Val Arg Pro Lys
 405 410 415
 Leu Arg Val Val Thr Leu Leu Glu His Pro Phe Val Phe Ala Arg Asp
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 Pro Asp Glu Asp Gly Gln Cys Pro Ala Gly Gln Leu Cys Leu Asp Pro
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 Gly Thr Asn Asp Ser Ala Thr Leu Asp Ala Leu Phe Ala Ala Leu Ala
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 Asn Gly Ser Ala Pro Arg Ala Leu Arg Lys Cys Cys Tyr Gly Tyr Cys
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 Ile Asp Leu Leu Glu Arg Leu Ala Glu Asp Thr Pro Phe Asp Phe Glu
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 Leu Tyr Leu Val Gly Asp Gly Lys Tyr Gly Ala Leu Arg Asp Gly Arg
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 Trp Thr Gly Leu Val Gly Asp Leu Leu Ala Gly Arg Ala His Met Ala
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 Asp Thr Ala Ser Pro Ile Gly Ala Phe Met Trp Pro Leu His Trp Ser
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 Thr Trp Leu Gly Val Phe Ala Ala Leu His Leu Thr Ala Leu Phe Leu
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 Thr Val Tyr Glu Trp Arg Ser Pro Tyr Gly Leu Thr Pro Arg Gly Arg
 595 600 605
 Asn Arg Ser Thr Val Phe Ser Tyr Ser Ser Ala Leu Asn Leu Cys Tyr
 610 615 620
 Ala Ile Leu Phe Arg Arg Thr Val Ser Ser Lys Thr Pro Lys Cys Pro
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 Thr Gly Arg Leu Leu Met Asn Leu Trp Ala Ile Phe Cys Leu Leu Val
 645 650 655
 Leu Ser Ser Tyr Thr Ala Asn Leu Ala Val Met Val Gly Asp Lys
 660 665 670
 Thr Phe Glu Glu Leu Ser Gly Ile His Asp Pro Lys Leu His His Pro
 675 680 685
 Ala Gln Gly Phe Arg Phe Gly Thr Val Trp Glu Ser Ser Ala Glu Ala
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 Tyr Ile Lys Lys Ser Phe Pro Asp Met His Ala His Met Arg Arg His
 705 710 715 720
 Ser Ala Pro Thr Thr Pro Arg Gly Val Ala Met Leu Thr Ser Asp Pro


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<400> 4517
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<210> 4518

<211> 650

<212> PRT

<213> Homo sapiens

<400> 4518

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Val Ser Ser Leu Leu Leu Gln Glu Glu Glu Pro Leu Ala Gly Gly Lys
 35           40           45
Pro Gly Ala Asp Gly Gly Ser Leu Glu Ala Val Arg Leu Gly Pro Ser
 50           55           60
Ser Gly Leu Leu Val Asp Trp Leu Glu Met Leu Asp Pro Glu Val Val
 65           70           75           80
Ser Ser Cys Pro Asp Leu Gln Leu Arg Leu Leu Phe Ser Arg Arg Lys
 85           90           95
Gly Lys Gly Gln Ala Gln Val Pro Ser Phe Arg Pro Tyr Leu Leu Thr
 100          105          110
Leu Phe Thr His Gln Ser Ser Trp Pro Thr Leu His Gln Cys Ile Arg
 115          120          125
Val Leu Leu Gly Lys Ser Arg Glu Gln Arg Phe Asp Pro Ser Ala Ser
 130          135          140
Leu Asp Phe Leu Trp Ala Cys Ile His Val Pro Arg Ile Trp Gln Gly
 145          150          155          160
Arg Asp Gln Arg Thr Pro Gln Lys Arg Arg Glu Glu Leu Val Leu Arg
 165          170          175
Val Gln Gly Pro Glu Leu Ile Ser Leu Val Glu Leu Ile Leu Ala Glu
 180          185          190
Ala Glu Thr Arg Ser Gln Asp Gly Asp Thr Ala Ala Cys Ser Leu Ile
 195          200          205
Gln Ala Arg Leu Pro Leu Leu Leu Ser Cys Cys Cys Gly Asp Asp Glu
 210          215          220
Ser Val Arg Lys Val Thr Glu His Leu Ser Gly Cys Ile Gln Gln Trp
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Gly Asp Ser Val Leu Gly Arg Arg Cys Arg Asp Leu Leu Leu Gln Leu
 245          250          255
Tyr Leu Gln Arg Pro Glu Leu Arg Val Pro Val Pro Glu Val Leu Leu
 260          265          270
His Ser Glu Gly Ala Ala Ser Ser Val Cys Lys Leu Asp Gly Leu
 275          280          285
Ile His Arg Phe Ile Thr Leu Leu Ala Asp Thr Ser Asp Ser Arg Ala
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Leu Glu Asn Arg Gly Ala Asp Ala Ser Met Ala Cys Arg Lys Leu Ala
 305          310          315          320
Val Ala His Pro Leu Leu Leu Leu Arg His Leu Pro Met Ile Ala Ala
 325          330          335
Leu Leu His Gly Arg Thr His Leu Asn Phe Gln Glu Phe Arg Gln Gln
 340          345          350
Asn His Leu Ser Cys Phe Leu His Val Leu Gly Leu Leu Glu Leu Leu
 355          360          365
Gln Pro His Val Phe Arg Ser Glu His Gln Gly Ala Leu Trp Asp Cys
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Leu Leu Ser Phe Ile Arg Leu Leu Leu Asn Tyr Arg Lys Ser Ser Arg

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385              390              395              400
His Leu Ala Ala Phe Ile Asn Lys Phe Val Gln Phe Ile His Lys Tyr
              405              410              415
Ile Thr Tyr Asn Ala Pro Ala Ala Ile Ser Phe Leu Gln Lys His Ala
              420              425              430
Asp Pro Leu His Asp Leu Ser Phe Asp Asn Ser Asp Leu Val Met Leu
              435              440              445
Lys Ser Leu Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr
              450              455              460
Asp Arg Gly Leu Asp Glu Gly Glu Glu Glu Ser Ser Ala Gly Ser
465              470              475              480
Leu Pro Leu Val Ser Val Ser Leu Phe Thr Pro Leu Thr Ala Ala Glu
              485              490              495
Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
              500              505              510
Glu Ser Gly Pro Ala Ser Pro Thr Pro Asp Leu Leu Glu Val Leu Ser
              515              520              525
Asp Ile Asp Glu Met Ser Arg Arg Arg Pro Glu Ile Leu Ser Phe Phe
              530              535              540
Ser Thr Asn Leu Gln Arg Leu Met Ser Ser Ala Glu Glu Cys Cys Arg
545              550              555              560
Asn Leu Ala Phe Ser Leu Ala Leu Arg Ser Met Gln Asn Ser Pro Ser
              565              570              575
Ile Ala Ala Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln
              580              585              590
Asp Phe Glu Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala
              595              600              605
Leu Leu Cys Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu
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Leu Arg Ile Leu His Met Glu Ala Val Met
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<210> 4519

<211> 2326

<212> DNA

<213> Homo sapiens

<400> 4519

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420

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960
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<210> 4520

<211> 617

<212> PRT

<213> Homo sapiens

<400> 4520

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			20					25					30		
Thr	Asn	Cys	Lys	Gln	Ala	Glu	Arg	Pro	Asn	Asn	Gln	Gln	Asn	Cys	Phe
		35					40					45			
Lys	Val	Cys	Asp	Trp	His	Lys	Glu	Leu	Tyr	Asp	Trp	Arg	Leu	Gly	Pro
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Trp	Asn	Gln	Cys	Gln	Pro	Val	Ile	Ser	Lys	Ser	Leu	Glu	Lys	Pro	Leu
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Glu	Cys	Ile	Lys	Gly	Glu	Glu	Gly	Ile	Gln	Val	Arg	Glu	Ile	Ala	Cys
			85					90					95		
Ile	Gln	Lys	Asp	Lys	Asp	Ile	Pro	Ala	Glu	Asp	Ile	Ile	Cys	Glu	Tyr
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Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln
		115					120					125			
Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys
	130					135					140				
Thr	Cys	Gly	Ser	Gly	Leu	Gln	His	Arg	Thr	Arg	His	Val	Val	Ala	Pro
145					150					155				160	
Pro	Gln	Phe	Gly	Gly	Ser	Gly	Cys	Pro	Asn	Leu	Thr	Glu	Phe	Gln	Val
			165						170					175	
Cys	Gln	Ser	Ser	Pro	Cys	Glu	Ala	Glu	Glu	Leu	Arg	Tyr	Ser	Leu	His
			180					185					190		
Val	Gly	Pro	Trp	Ser	Thr	Cys	Ser	Met	Pro	His	Ser	Arg	Gln	Val	Arg
		195					200					205			
Gln	Ala	Arg	Arg	Arg	Gly	Lys	Asn	Lys	Glu	Arg	Glu	Lys	Asp	Arg	Ser
	210					215					220				
Lys	Gly	Val	Lys	Asp	Pro	Glu	Ala	Arg	Glu	Leu	Ile	Lys	Lys	Lys	Arg
225				230						235				240	
Asn	Arg	Asn	Arg	Gln	Asn	Arg	Gln	Glu	Asn	Lys	Tyr	Trp	Asp	Ile	Gln
			245						250					255	
Ile	Gly	Tyr	Gln	Thr	Arg	Glu	Val	Met	Cys	Ile	Asn	Lys	Thr	Gly	Lys
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Ala	Ala	Asp	Leu	Ser	Phe	Cys	Gln	Gln	Glu	Lys	Leu	Pro	Met	Thr	Phe
		275					280						285		
Gln	Ser	Cys	Val	Ile	Thr	Lys	Glu	Cys	Gln	Val	Ser	Glu	Trp	Ser	Glu

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 Trp Ser Pro Cys Ser Lys Thr Cys His Asp Met Val Ser Pro Ala Gly
 305 310 315 320
 Thr Arg Val Arg Thr Arg Thr Ile Arg Gln Phe Pro Ile Gly Ser Glu
 325 330 335
 Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly
 340 345 350
 Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp
 355 360 365
 Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg
 370 375 380
 Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val
 385 390 395 400
 Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His
 405 410 415
 Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly
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 Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu
 435 440 445
 Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn
 450 455 460
 Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg
 465 470 475 480
 Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro
 485 490 495
 His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp
 500 505 510
 Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys
 515 520 525
 Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly
 530 535 540
 Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro
 545 550 555 560
 Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp
 565 570 575
 Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu
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<210> 4521

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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120

ttataccaat ataaacaatt actcaggaaa aaaagaaaat aaaaacttgc aagggctaaa

180

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<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

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			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
	50					55					60				
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65				70					75					80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
				85				90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100				105					110			
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
		115				120					125				
Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp


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<210> 4524
<211> 262
<212> PRT
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<213> Homo sapiens

<400> 4524

Ala Leu Tyr Ile Leu Val Cys Thr Arg Asp Ser Ser Ala Arg Leu Leu
 1 5 10 15
 Gly Lys Thr Lys Asp Thr Pro Arg Leu Ser Leu Xaa Leu Val Ile Leu
 20 25 30
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser
 245 250 255
 Phe Phe Ser Trp Ile Gln
 260

<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

nngaaccatg gcattctcca ggctctgacc acagaagctt atgaatggga gccacgtgtt
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 gtgagtacag aggtggtcag agcccaagaa gaatgggaag ctgtggacac catccagcca
 120
 gagacagga gccaaagctag ctcagagcag cctgggcagc taatctcctt cagtgaggcc
 180
 ctgcagcact tccagactgt ggacctttcc cccttcaaga aaagaatcca gccaaactatt
 240
 cgaaggactg ggctcgcgc cctccgacac tacctcttcg ggctccaaa gctccaccag
 300

cgcccttcggg aagaaaggga cttggctcctg accattgctc agtgtggcct ggatagccaa
360
gaccagtgatc atggccgagt cctccagacc atctataaga agctgaccgg ctccaagttt
420
gactgtgccc ttcattgaaa cactgggag gacctgggct ttcagggagc gaatccagcc
480
acagacctga gagggcgagg cttccttgcc ctctgcacac tgctctacct agtgatggac
540
tcaaagacct tgccgatggc gcaggagatt ttccgctgt ctctgcacca catccagcaa
600
ttccctttct gtttgatgct cgtgaacatc accacattg ccatccaggc cttgagagag
660
gagtgtctct ccagagagtg taatcggcag cagaaggctc tccccgtggg gaacagcttc
720
tatgccgcca cattcctcca cctcgcacat gtctggagga cacagcggaa gaccatctca
780
gactcgggct ttgtcctcaa aggtgtgctc tttcttctgg ggaggcctag gctgaatgca
840
cagtgtccca ggtccagaga gcccaagggtg gttgctagac tgggttttggc tgcagttctt
900
ccccatccac actttctcaa attccagctt accaaaatct ccatcaccga cccctgggag
960
tctgctagtt ctctttctc tgccctgact gtcgcccttt tctgggtctta tacttatgac
1020
aagcatatat tctgatcaaa aattggggagc cagggtccaa tagttggact attcaaagtt
1080
gcaattgtgc agacaaggta gagtgtgtgg tcctgtggc ttagctggc tccttagcct
1140
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1200
gggggtactc cctagagctg ctaggcttga ggccttgact gttgtgtcac ccagagcccc
1260
ctcaagcctt ctgctcccca attctctctg ttgcagagtt ggaagtattg gccaaaga
1320
gccacggcg ggctgctcaa gacctggag ctgtacttgg ccagggtgtc aaaggacag
1380
gcctccttgt tgggagcaca gaagtgtat gggccagaag cccctccctt caaggatctc
1440
accttcacag gtgagagtga cctgcagtct cactcatccg aaggcgtatg gctgatctga
1500
cctccgagat gaatggaggc ttaaaggctg agctgcaggg gctttcaggg ggtcagtgga
1560
gccatgtcag gagcctggcc aggccgcacc ccttgctgtc tcagcagatg ggatatagga
1620
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1680
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1731

<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

Xaa Asn His Gly Ile Leu Gln Ala Leu Thr Thr Glu Ala Tyr Glu Trp
 1 5 10 15
 Glu Pro Arg Val Val Ser Thr Glu Val Val Arg Ala Gln Glu Glu Trp
 20 25 30
 Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
 35 40 45
 Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
 50 55 60
 Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
 65 70 75 80
 Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
 85 90 95
 Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
 100 105 110
 Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
 115 120 125
 Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
 130 135 140
 His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
 145 150 155 160
 Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
 165 170 175
 Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
 180 185 190
 Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
 195 200 205
 Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
 210 215 220
 Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
 225 230 235 240
 Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
 245 250 255
 Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
 260 265 270
 Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
 275 280 285
 Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
 290 295 300
 Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
 305 310 315 320
 Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
 325 330 335
 Tyr Thr Tyr Asp Lys His Ile Phe
 340

<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

nntttttttt tttttttttt tttttttttt tttttttttt tttttttttg cagagacatg
 60

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<210> 4528
<211> 206
<212> PRT
<213> Homo sapiens
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<400> 4528
Xaa Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe Phe
  1             5             10             15
Cys Arg Asp Met Ala Ala Phe Ile Val Pro Ser Pro Ala Arg Arg Cys
      20             25             30
Ser Gln Lys Gly Ser Leu Gly His Leu Pro Thr Gln Pro Trp Leu Trp
      35             40             45
Ala Ala Met Ser Pro Arg Gly Gln Glu Arg Gly Thr Ser His Ser Gln
      50             55             60
Ala Arg Glu Pro Gln Arg Pro Gly Arg Trp Leu Leu Gly Ser Leu Gln
  65             70             75             80
Ser Ser Pro Gly Thr Leu Gly Gln Ala Gly Thr Ala Ser Arg Arg Arg
      85             90             95
Gly Cys Met Val Gln Arg Trp Val Gln Val Ala Thr Gly Arg Arg Ala
      100            105            110
Val Gln Val Pro Lys Gly Ala Leu Gly Leu Ala Leu Gly Glu Thr Ser
      115            120            125
Pro Gly Ala Ser Arg Gly Met Ser Gly Gly Ala Gly Gly Cys Trp Ala
      130            135            140
Leu Gly Trp Ala Pro Ser Pro Val Leu Pro Ser Trp Leu Leu Glu Gly

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145             150             155             160
Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
             165             170             175
Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
             180             185             190
Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
             195             200             205

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<210> 4529

<211> 546

<212> DNA

<213> Homo sapiens

<400> 4529

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nngagagctg agaggtggaa aatggcgctg acgtgagcgc gaactcgcac tgcccagagg
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gtggccgccc cctaagctgc agccgccgga gccgcagaaa caagaggccg agccgtgtcg
120
aagatggagg agaaaccctc agggcccatc ccggacatgc tggccactgc agagcccagc
180
tccagtgaga ccgacaagga ggtgtgtgcc ccggctgtgc cagctgcagc cccctcctcc
240
tccatgtcgg aggagccagg ccctgagcag gcagccacac cgccagtggg gaacgtggag
300
gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
360
gaccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
420
gacgacgccc acctccaggg aagcaaatec cttgtccag ccctggctgc tgcctcagtt
480
ttcccagcgt ccgtgacctg gcacagcatc tgcgaacca ctgcccgccg agccctatgc
540
agtctc
546

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<210> 4530

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4530

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Met Glu Glu Lys Pro Ser Gly Pro Ile Pro Asp Met Leu Ala Thr Ala
 1             5             10             15
Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
             20             25             30
Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
             35             40             45
Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
             50             55             60
Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
65             70             75             80
Pro Ala Leu Ala

```

<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

<400> 4531
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gccggtcctt tgcagggcgg tggggcccgg gccctggacc tactccgggg cctgccgcgt
120
gtgagcctgg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga
180
ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc
240
cgccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac
300
gggtttaacg aaggacatag tttcagacgc cagtataagc ctttgagtct caatagactg
360
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt
420
gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatgggtg ccagctgggt
480
gaggaggggtg ctgacacctt tacggcaaaa gttaatatg aagtacagtt ggcttcagaa
540
ctagctattg ctgccattga aaaaaatggg ggtgttggtta ctacagcctt ctatgatcca
600
agaagtctgg acattgtatg caaacctggt ccattctttc ttcgtggaca acccattcca
660
aaaagaatgc ttccaccaga agaactggta ccatattaca ctgatgcaaa gaaccgtggg
720
tacctggcgg atcctgcaa atttcctgaa gcacgacttg aactcgccag gaagtatggt
780
tatatcttac ctgatcac taaagatgaa ctcttcaaaa tgctctgtac taggaaggat
840
ccaaggcaga ttttctttgg tcttgctcca ggatgggtgg tgaatatggc cgataagaaa
900
atcctaaaac ctacagatga aaatctcctt aagtattata cctcatgaat tcccgtccaa
960
ggaagcagag ttgttaaaga gtactggaat aggggctgaa ggatctatat tcccttattg
1020
cattttcctt atgtataatt ttccagatgg tgatgttact tttcagtga ctcatatgtc
1080
tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
1140
gtgggttctg tctcaaagat acaaactccc tgatagtcta tggaaggaaa atgacaacta
1200
ttttagaata tttctagttt gttttttcag tgatcttttc atccaggcct tgttactggt
1260
acagatcaga atgaaatgca caagtggaat gggattgacc tgtaggcctg ctctgccgag
1320
atgagagcag atggaatgag ttggtgaccc ctcttaatct gtagcctcag ggaaacacgg
1380
ctacccaatg ccaagatggg aaaccctcac gcgt
1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
 Met Ala Gly Pro Leu Gln Gly Gly Gly Ala Arg Ala Leu Asp Leu Leu
 1 5 10 15
 Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
 20 25 30
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
 290 295

<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
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tttgcacacg tgtgccctg tccggacgcc ggggctgagg cccgatcgct cgggcagcgg
 120
 gcgcggcggc cccgcgcagc catggactgg ctcatgggga agtccaaagc caagcccaat
 180
 ggcaagaagc cccgtgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcaccg acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacagtac
 420
 tactggtatg acgagcgggg gaagaaggctc aagtgcacgg cccacagta cgttgacttc
 480
 gtcctagagct ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagctcctt tgagtccttg gtgaggaaga tctgcagaca cctgttccac
 600
 gtgctggcac acatctactg ggcccacttc aaggagacgc tggccctgga gctgcacgga
 660
 cacttgaaca cgctctacgt ccacttcacg ctctttgctc gggagttcaa cctgctggac
 720
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg ggcggcggg
 780
 gtccacagtg ggggcagtgg ggatggggcc ggcagcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc ccgggccgga caggggcaca cgtgtgcaaa gagacgggtg
 900
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 960
 acacgcgt
 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

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His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25					30		
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
		35					40					45			
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50					55				60					
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
65				70					75					80	
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
			85					90					95		
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
		100					105						110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

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      115              120              125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
      130              135              140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
145              150              155              160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165              170              175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180              185              190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195              200              205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210              215              220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
225              230              235              240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245              250              255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260              265              270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
      275              280

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<210> 4535
<211> 473
<212> DNA
<213> Homo sapiens

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<400> 4535
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60
cagtggcatg atcacagctc actgcaacct ctgectccca ggttcaagca gttctctngc
120
ctcagcctcc cgagtagctg ggattacagg cgtccgccac cagccccggc taatttttgt
180
attttttagta gaaacggggg ttcaccatct cggccaggct ggtcttgaac tcctgacctc
240
atgatccatc cgccttggtc tcccaaagtg ctgggattac aggcattgagc taccgcgccc
300
ggccttggtc gcagattaac gggaatacct cccttggtc tcctaggtga cactgtgata
360
ttcggtagta cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
420
ccgggaccca cattgcctgg ttttgaatcc cagcacctcc acatgttacg cgt
473

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<210> 4536
<211> 75
<212> PRT
<213> Homo sapiens

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<400> 4536
Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
1      5      10      15
Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

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<400> 4537
naagcttggc acgagggaaa tgaagcctgt gatttggact ccacagtgtc tgctcttgcc
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ctggcttttt acctagcaaa gacaactgag gctgaggaag tctttgtgcc agttttaaat
120
ataaaacggt ctgaactacc tctgcgaggt gacattgtct tctttcttca gaagggtcat
180
attccagaga gtatcttgat ttttcgggat gagattgacc tccatgcatt ataccaggct
240
ggccaactca ccctcatcct tgtcgaccat catatcttat ccaaaagtga cacagcccta
300
gaggagngca gtagcagagg tgctagacca tcgacccatc gagccgaaac actgccctcc
360
ctgnnccatg tttcagttga gctggtgggg tcctgtgcta ccctgggtgac cgagagaatc
420
ctgcaggggg caccagagat cttggacagg caaactgcag cccttctgca tggaaccatc
480
atcctggact gtgtcaacat ggaccttaaa attggaaagg caaccccaa ggacagcaaa
540
tatgtggaga aactagaggc ccttttccca gacctacca agagaaatga tatatttgat
600
tccctacaaa aggcaaagtt tgatgtatca ggactgacca ctgagcagat gctgagaaaa
660
gaccagaaga ctatctatag acaaggcgctc aagggtggcca ttagtgcaat atatatggat
720
ttggaggcct ttctgcagag gtctaacctc cttgcagatc tccatgcttt ctgccaggct
780
cacagctatg atgtcctggt tgccatgact atctttttca aactcacao tgagccagtg
840
cggcagttgg ctattttctg tccccatgtg gactccaaa caacgatctg tgaagtccctg
900
gaacgtctcc actctccacc cctgaagctg acccctgcct caagtacca ccctaacctc
960
catgcctatc ttcaaggcaa caccaggctc tctcgaaaga aacttctgcc cctgctccag
1020
gaagccctgt cagcatatct tgactccatg aagatccctt caggacagcc tgagacagca
1080
gatgtgtcca gggagcaagt ggacaaggaa ttggacaggg caagtaactc cctgatttct
1140
ggactgagtc aagatgagga ggaccctccg ctgccccga cgcccatgaa cagcttgggtg
1200

gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt cttcgagaag
1260
tgcagtcaga tctcactgtc acagtctacc acagcctccc tgtccaagaa gtgactgttg
1320
agaggcgagg aggtagtggg tgaggctacc tgactcactt caaatgcatg ttttgagatg
1380
tttggagatt cagcaattct gtcttcattg ctccaggatc tggatatactg ttctcataaa
1440
actgagagga gaaaaaaagt gaaagaaagc agctgcttta agaattgggtt tccacctttt
1500
ccccctaac tctaccaatc agacacattt tattatttaa atctgcacct ctctctattt
1560
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ttagacccca aaagtgtcct cggcatggat ctgaaacaga accagtatct gtcatggaac
1680
tgaacattca tcgatgggtc ccatgtattc atttattcac ttgttcattc aagtatttat
1740
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1800
tcagcctaca gcagattatc agctcgggtga cttttctttc tgccaccatt taggtgatgg
1860
tgtttgattc agagatggct gaatttctat tcttagctta ttgtgactgt ttcagatcta
1920
gtttgggaac agattagagg ccattgtctt ctgtcctgat cagggtggcct ggctgtttct
1980
ttggatccct ctgtcccaga gccaccaga accctgactc ttgagaatca agaaaacacc
2040
cagaaaggcc ttaatgacct cataggcact cttccaaaaa gacaacagaa ctggaatgag
2100
aggcctgggt ctgtctcctg ccttagcagg cctatcaatt tcttgtcaat ctcttttttt
2160
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2811

<210> 4538
 <211> 437
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
 50 55 60
 Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
 65 70 75 80
 Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
 85 90 95
 Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
 100 105 110
 His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
 115 120 125
 Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
 130 135 140
 Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
 145 150 155 160
 Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
 165 170 175
 Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
 180 185 190
 Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
 195 200 205
 Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
 210 215 220
 Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
 225 230 235 240
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 245 250 255
 Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
 260 265 270
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 His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
 325 330 335
 Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
 340 345 350
 Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
 355 360 365
 Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

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      370              375              380
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Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
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Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
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Ser Leu Ser Lys Lys
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<210> 4539
<211> 331
<212> DNA
<213> Homo sapiens

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331

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<210> 4540
<211> 99
<212> PRT
<213> Homo sapiens

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      20              25              30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35              40              45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50              55              60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
      65              70              75              80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
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Pro Pro Ala

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<210> 4541
<211> 452
<212> DNA
<213> Homo sapiens

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<400> 4541
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 300
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 360
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 452

<210> 4542
 <211> 128
 <212> PRT
 <213> Homo sapiens

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 Ser Leu Trp Ile Cys Val Gln Ile Val Ile Lys Thr Gln Gly Lys Asn
 35 40 45
 Leu Gln Glu Lys Ser Val Pro Lys Ala Ala Gln Asp Leu Met Thr Asn
 50 55 60
 Gly Tyr Val Ser Leu Gln Glu Lys Asp Ile Phe Val Ser Gly Val Lys
 65 70 75 80
 Ile Phe Tyr Gly Ser Gln Thr Gly Thr Ala Lys Gly Phe Ala Thr Val
 85 90 95
 Leu Ala Glu Ala Val Thr Ser Leu Asp Leu Pro Val Ala Ile Ile Asn
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<210> 4543
 <211> 815
 <212> DNA
 <213> Homo sapiens

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 180

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<210> 4544
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 4544
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 His Lys Leu Gln Gly Ala Ala Val Ser Leu Ala Arg His Trp Pro
 35 40 45
 Ile Thr Ser Asn Arg Leu Gly Arg Ala Pro Val Glu Ser Pro Val Pro
 50 55 60
 Ser His Phe Arg Arg Val Ala Leu Leu Pro Arg Ser Arg Ser Gln Trp
 65 70 75 80
 Pro Asp Lys Gln Ser His Ser Gly Val Val Arg Pro Gly Arg Val Ser
 85 90 95
 Pro Val Gly Gly Arg Gly Ala Leu Ala Arg Arg Val Ser Gly Glu Ala
 100 105 110
 Lys Cys Lys Ala Leu Val Arg Gly Ala Ser Gly Ser His Gly Gly Ala
 115 120 125
 Ala Gly Gln Gly Pro Ala Val Thr Arg Ser Pro Ser Ser Leu Cys Leu
 130 135 140
 Ala Leu Val Ser Thr Gly
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<210> 4545
 <211> 3568
 <212> DNA
 <213> Homo sapiens

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420
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480
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<210> 4546
 <211> 380
 <212> PRT
 <213> Homo sapiens

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 Gly Thr Arg Gly Val Val Ala Leu Gln Thr Leu Arg Lys Leu Val Glu
 50 55 60
 Leu Thr Gln Lys Pro Val His Gln Leu Phe Asp Tyr Ile Cys Gly Val
 65 70 75 80
 Ser Thr Gly Ala Ile Leu Ala Phe Met Leu Gly Leu Phe His Met Pro
 85 90 95
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 115 120 125
 Phe Tyr Asp Ser Gln Thr Trp Glu Asn Ile Leu Lys Asp Arg Met Gly
 130 135 140
 Ser Ala Leu Met Ile Glu Thr Ala Arg Asn Pro Thr Cys Pro Lys Val
 145 150 155 160
 Ala Ala Val Ser Thr Ile Val Asn Arg Gly Ile Thr Pro Lys Ala Phe
 165 170 175
 Val Phe Arg Asn Tyr Gly His Phe Pro Gly Ile Asn Ser His Tyr Leu
 180 185 190
 Gly Gly Cys Gln Tyr Lys Met Trp Gln Ala Ile Arg Ala Ser Ser Ala
 195 200 205
 Ala Pro Gly Tyr Phe Ala Glu Tyr Ala Leu Gly Asn Asp Leu His Gln
 210 215 220
 Asp Gly Gly Leu Leu Leu Asn Asn Pro Ser Ala Leu Ala Met His Glu
 225 230 235 240
 Cys Lys Cys Leu Trp Pro Asp Val Pro Leu Glu Cys Ile Val Ser Leu
 245 250 255
 Gly Thr Gly Arg Tyr Glu Ser Asp Val Arg Asn Thr Val Thr Tyr Thr

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Phe	Arg	Phe	Asn	Pro	Val	Met	Cys	Glu	Asn	Ile	Pro	Leu	Asp	Glu	Ser
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Arg	Asn	Glu	Lys	Leu	Asp	Gln	Leu	Gln	Leu	Glu	Gly	Leu	Lys	Tyr	Ile
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Glu	Lys	Thr	Thr	Leu	Gln	Lys	Ile	Asn	Asp	Trp	Ile	Lys	Leu	Lys	Thr
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<210> 4547

<211> 2211

<212> DNA

<213> Homo sapiens

<400> 4547

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<210> 4548

<211> 515

<212> PRT

<213> Homo sapiens

<400> 4548

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Lys Glu Lys Glu Lys Lys Val Lys Lys Thr Ile Pro Ser Trp Ala Thr
      85              90              95
Leu Ser Ala Ser Gln Leu Ala Arg Ala Gln Lys Gln Thr Pro Met Ala
  100              105              110
Ser Ser Pro Arg Pro Lys Met Asp Ala Ile Leu Thr Glu Ala Ile Lys
  115              120              125
Ala Cys Phe Gln Lys Ser Gly Ala Ser Val Val Ala Ile Arg Lys Tyr
  130              135              140
Ile Ile His Lys Tyr Pro Ser Leu Glu Leu Glu Arg Arg Gly Tyr Leu
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Leu Lys Gln Ala Leu Lys Arg Glu Leu Asn Arg Gly Val Ile Lys Gln
      165              170              175
Val Leu His Asn Val Lys Gly Lys Gly Ala Ser Gly Ser Phe Val Val
      180              185              190
Val Gln Lys Ser Arg Lys Thr Pro Gln Lys Ser Arg Asn Arg Lys Asn
  195              200              205
Arg Ser Ser Ala Val Asp Pro Glu Pro Gln Val Lys Leu Glu Asp Val
  210              215              220
Leu Pro Leu Ala Phe Thr Arg Leu Cys Glu Pro Lys Glu Ala Ser Tyr
  225              230              235              240
Ser Leu Ile Arg Lys Tyr Val Ser Gln Tyr Tyr Pro Lys Leu Arg Val
      245              250              255
Asp Ile Arg Pro Gln Leu Leu Lys Asn Ala Leu Gln Arg Ala Val Glu
  260              265              270
Arg Gly Gln Leu Glu Gln Ile Thr Gly Lys Gly Ala Ser Gly Thr Phe
  275              280              285
Gln Leu Lys Lys Ser Gly Glu Lys Pro Leu Leu Gly Gly Ser Leu Met
  290              295              300
Glu Tyr Ala Ile Leu Ser Ala Ile Ala Ala Met Asn Glu Pro Lys Thr
  305              310              315              320
Cys Ser Thr Thr Ala Leu Lys Lys Tyr Val Leu Glu Asn His Pro Gly
      325              330              335
Thr Asn Ser Asn Tyr Gln Met His Leu Leu Lys Lys Thr Leu Gln Lys
  340              345              350
Cys Glu Lys Asn Gly Trp Met Glu Gln Ile Ser Gly Lys Gly Phe Ser
  355              360              365
Gly Thr Phe Gln Leu Cys Phe Pro Tyr Tyr Pro Ser Pro Gly Val Leu
  370              375              380
Phe Pro Lys Lys Glu Pro Asp Asp Ser Arg Asp Glu Asp Glu Asp Glu
  385              390              395              400
Asp Glu Ser Ser Glu Glu Asp Ser Glu Asp Glu Glu Pro Pro Pro Lys
      405              410              415
Arg Arg Leu Gln Lys Lys Thr Pro Ala Lys Ser Pro Gly Lys Ala Ala
  420              425              430
Ser Val Lys Gln Arg Gly Ser Lys Pro Ala Pro Lys Val Ser Ala Ala
  435              440              445
Gln Arg Gly Lys Ala Arg Pro Leu Pro Lys Lys Ala Pro Pro Lys Ala
  450              455              460
Lys Thr Pro Ala Lys Lys Thr Arg Pro Ser Ser Thr Val Ile Lys Lys

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465		470		475		480									
Pro	Ser	Gly	Gly	Ser	Ser	Lys	Lys	Pro	Ala	Thr	Ser	Ala	Arg	Lys	Glu
				485				490						495	
Val	Lys	Leu	Pro	Gly	Lys	Gly	Lys	Ser	Thr	Met	Lys	Lys	Ser	Phe	Arg
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Val	Lys	Lys													
			515												

<210> 4549
 <211> 2927
 <212> DNA
 <213> Homo sapiens

<400> 4549
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 120
 ggggagacca acttgaagtt cagacaggcc ctgatgggtca cccacaaaga actggccact
 180
 ataaagaaga tggcgctcctt tcaaggcaca gtgacgtgtg aggcgcctaa cagtcggatg
 240
 caccacttcg tgggggtgcct ggaatggaat gacaagaaat actccctgga cattggcaac
 300
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 360
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 420
 catttgaaga gaaccaagct ggacctcctg atgaacaagc tgggtggttgat gatcttcac
 480
 tccgtgggtgc ttgtctgcct ggtgttggtc ttcggcttcg gtttctcagt caaagaattc
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 720
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 780
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 840
 aacaagtgtc gcatcagcgg ccgctcttat ggagaacccc tacctctgga acaagtctgc
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 1080
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 1140
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 1200

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 1260
 gaacgcttgc acaggagggg ggcaatggaa ttgcccacag aggaggcctt ggctgccttt
 1320
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 1380
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 1440
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 2520
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 2580
 ctgtccatca ccatggaggt cattcttata atcaagtact ggaccgccct gtgcgtggcg
 2640
 accatcctcc tcagccttgg tttctacgcc atcatgacta ccaccacca gagcttctg
 2700
 ctcttcagaa tgccgacctc agcgtgatgt cctctccctc catcctgctg gtggctcctg
 2760
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 2820

aggagctacg tgccaaggtg aggtgggcct gggcctgggg tcctcatctg gtacattcca
 2880
 ggaccctggt tggggagccg tgcagggcgt agggactgca aggtgtc
 2927

<210> 4550
 <211> 908
 <212> PRT
 <213> Homo sapiens

<400> 4550
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 Pro Ala Asp Met Leu Leu Leu Ala Ser Thr Glu Pro Ser Ser Leu Cys
 20 25 30
 Tyr Val Glu Thr Val Asp Ile Asp Gly Glu Thr Asn Leu Lys Phe Arg
 35 40 45
 Gln Ala Leu Met Val Thr His Lys Glu Leu Ala Thr Ile Lys Lys Met
 50 55 60
 Ala Ser Phe Gln Gly Thr Val Thr Cys Glu Ala Pro Asn Ser Arg Met
 65 70 75 80
 His His Phe Val Gly Cys Leu Glu Trp Asn Asp Lys Lys Tyr Ser Leu
 85 90 95
 Asp Ile Gly Asn Leu Leu Leu Arg Gly Cys Arg Ile Arg Asn Thr Asp
 100 105 110
 Thr Cys Tyr Gly Leu Val Ile Tyr Ala Asp Gly Tyr Met Phe Val Gly
 115 120 125
 Phe Asp Thr Lys Ile Met Lys Asn Cys Gly Lys Ile His Leu Lys Arg
 130 135 140
 Thr Lys Leu Asp Leu Leu Met Asn Lys Leu Val Val Val Ile Phe Ile
 145 150 155 160
 Ser Val Val Leu Val Cys Leu Val Leu Ala Phe Gly Phe Gly Phe Ser
 165 170 175
 Val Lys Glu Phe Lys Asp His His Tyr Tyr Leu Ser Gly Val His Gly
 180 185 190
 Ser Ser Val Ala Ala Glu Ser Phe Phe Val Phe Trp Ser Phe Leu Ile
 195 200 205
 Leu Leu Ser Val Thr Ile Pro Met Ser Met Phe Ile Leu Ser Glu Phe
 210 215 220
 Ile Tyr Leu Gly Asn Ser Val Phe Ile Asp Trp Asp Val Gln Met Tyr
 225 230 235 240
 Tyr Lys Pro Gln Asp Val Pro Ala Lys Ala Arg Ser Thr Ser Leu Asn
 245 250 255
 Asp His Leu Gly Gln Val Glu Tyr Ile Phe Ser Asp Lys Thr Gly Thr
 260 265 270
 Leu Thr Gln Asn Ile Leu Thr Phe Asn Lys Cys Cys Ile Ser Gly Arg
 275 280 285
 Val Tyr Gly Glu Pro Leu Pro Leu Glu Gln Val Arg Arg Arg Glu Ala
 290 295 300
 Ala Leu Pro Gln Cys Gly Pro Ala Ala Pro Arg Ala Asp Gln Arg Gly
 305 310 315 320
 Arg Gly Arg Ala Gly Val Leu Ala Pro Ala Gly His Leu Pro His Gly
 325 330 335
 Asp Asp Gln Leu Leu Tyr Gln Ala Ala Ser Pro Asp Glu Gly Ala Leu

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340      345      350
Val Thr Ala Ala Arg Asn Phe Gly Tyr Val Phe Leu Ser Arg Thr Gln
355      360      365
Asp Thr Val Thr Ile Met Glu Leu Gly Glu Glu Arg Val Tyr Gln Val
370      375      380
Leu Ala Ile Met Asp Phe Asn Ser Thr Arg Lys Arg Met Ser Val Leu
385      390      395      400
Val Arg Lys Pro Glu Gly Ala Ile Cys Leu Tyr Thr Lys Gly Ala Asp
405      410      415
Thr Val Ile Phe Glu Arg Leu His Arg Arg Gly Ala Met Glu Phe Ala
420      425      430
Thr Glu Glu Ala Leu Ala Ala Phe Ala Gln Glu Thr Leu Arg Thr Leu
435      440      445
Cys Leu Ala Tyr Arg Glu Val Ala Glu Asp Ile Tyr Glu Asp Trp Gln
450      455      460
Gln Arg His Gln Glu Ala Ser Leu Leu Leu Gln Asn Arg Ala Gln Ala
465      470      475      480
Leu Gln Gln Val Tyr Asn Glu Met Glu Gln Asp Leu Arg Leu Leu Gly
485      490      495
Ala Thr Ala Ile Glu Asp Arg Leu Gln Asp Gly Val Pro Glu Thr Ile
500      505      510
Lys Cys Leu Lys Lys Ser Asn Ile Lys Ile Trp Val Leu Thr Gly Asp
515      520      525
Lys Gln Glu Thr Ala Val Asn Ile Gly Phe Ala Cys Glu Leu Leu Ser
530      535      540
Glu Asn Met Leu Ile Leu Glu Glu Lys Glu Ile Ser Arg Ile Leu Glu
545      550      555      560
Thr Tyr Trp Glu Asn Ser Asn Asn Leu Leu Thr Arg Glu Ser Leu Ser
565      570      575
Gln Val Lys Leu Ala Leu Val Ile Asn Gly Asp Phe Leu Asp Lys Leu
580      585      590
Leu Val Ser Leu Arg Lys Glu Pro Arg Ala Leu Ala Gln Asn Val Asn
595      600      605
Met Asp Glu Ala Trp Gln Glu Leu Gly Gln Ser Arg Arg Asp Phe Leu
610      615      620
Tyr Ala Arg Arg Leu Ser Leu Leu Cys Arg Arg Phe Gly Leu Pro Leu
625      630      635      640
Ala Ala Pro Pro Ala Gln Asp Ser Arg Ala Arg Arg Ser Ser Glu Val
645      650      655
Leu Gln Glu Arg Ala Phe Val Asp Leu Ala Ser Lys Cys Gln Ala Val
660      665      670
Ile Cys Cys Arg Val Thr Pro Lys Gln Lys Ala Leu Ile Val Ala Leu
675      680      685
Val Lys Lys Tyr His Gln Val Val Thr Leu Ala Ile Gly Asp Gly Ala
690      695      700
Asn Asp Ile Asn Met Ile Lys Thr Ala Asp Val Gly Val Gly Leu Ala
705      710      715      720
Gly Gln Glu Gly Met Gln Ala Val Gln Asn Ser Asp Phe Val Leu Gly
725      730      735
Gln Phe Cys Phe Leu Gln Arg Leu Leu Leu Val His Gly Arg Trp Ser
740      745      750
Tyr Val Arg Ile Cys Lys Phe Leu Arg Tyr Phe Phe Tyr Lys Ser Met
755      760      765
Ala Ser Met Met Val Gln Val Trp Phe Ala Cys Tyr Asn Gly Phe Thr

```

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      770      775      780
Gly Gln Asp Val Ser Ala Glu Gln Ser Leu Glu Lys Pro Glu Leu Tyr
785      790      795      800
Val Val Gly Gln Lys Asp Glu Leu Phe Asn Tyr Trp Val Phe Val Gln
      805      810      815
Ala Ile Ala His Gly Val Thr Thr Ser Leu Val Asn Phe Phe Met Thr
      820      825      830
Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His
      835      840      845
Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr
      850      855      860
Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala
865      870      875      880
Thr Ile Leu Leu Ser Leu Gly Phe Tyr Ala Ile Met Thr Thr Thr
      885      890      895
Gln Ser Phe Trp Leu Phe Arg Met Pro Thr Ser Ala
      900      905

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<210> 4551
 <211> 361
 <212> DNA
 <213> Homo sapiens

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<400> 4551
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120
caggcagggg tggctttgcc tgtctcagag caggcctcag cagcacactg tccagtacca
180
ggcatcagtg aggggtccaag aacttgccagc cagcaggggac gacagggcag ggccccagg
240
agagacccca cacagcgac atgggagagt ggatgccaaa ggtgggcagc ggggagggcg
300
cctgccaaac agtccctgtg tgggtgtgccg cagcgtgctg aggtctctgt gcggtgttgg
360
c
361

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<210> 4552
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4552
Met Glu Gly Pro Ser Val Arg Val Arg Thr Gly Gly Arg Gly Ser Arg
1      5      10      15
Ala Leu Gln Gly Gln Ala Gly Val Ala Leu Pro Val Ser Glu Gln Ala
20      25      30
Ser Ala Ala His Cys Pro Val Pro Gly Ile Ser Glu Gly Pro Arg Thr
35      40      45
Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr
50      55      60
Gln Arg Thr Trp Glu Ser Gly Cys Gln Arg Trp Ala Ala Gly Arg Ala

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```

<400> 4553
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ttatatcatt aagggaatag taaccttctc ttctccaata tgcattgacat ttttggacaa
120
tgcaattgtg gcactggcac ttatttcagt gaagaaaaac tttgtggttc tatggcattc
180
atcatttgac aaatgcaagc atcttcctta tcaatcagct cctattgaac ttactagcac
240
tgactgtgga atccttaagg gccattaca tttctgaaga agaaagctaa gatgaaggac
300
atgccactcc gaattcatgt gctacttggc ctagctatca ctacactagt acaagctgta
360
gataaaaaag tggattgtcc acggttatgt acgtgtgaaa tcaggccttg gtttacaccc
420
agatccattt atatggaagc atctacagtg gattgtaatg atttaggtct tttaaacttc
480
ccagccagat tgccagctaa cacacagatt cttctcctac agactaacia tattgcaaaa
540
attgaatact ccacagactt tccagtaaac cttactggcc tggattttatc tcaaaacaat
600
ttatcttcag tcaccaatat taatgtaaaa aagatgcctc agctcctttc tgtgtacctt
660
gaggaaaaa aacttactga actgcctgaa aaatgtctgt ccgaactgag caacttacaa
720
gaactctata ttaatcacia cttgctttct acaatttcac ctggagcctt tattggccta
780
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840
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900
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960
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1020
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1080
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1140
ctacacttaa aagagttggg gataaataat atgcctgagc tgatttccat cgatagtctt
1200
gctgtggata acctgccaga ttttaagaaa atagaagcta ctaacaaccc tagattgtct
1260

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1320
aatgctctca gtgccctgta ccatgggtacc attgagtctc tgccaaacct caaggaaate
1380
agcatacaca gtaaccccat cagggtgtgac tgtgtcatcc gttggatgaa catgaacaaa
1440
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1620
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1980
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2520
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2580
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2640
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2700
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2760
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2820
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2880

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 2940
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 2970

<210> 4554
 <211> 705
 <212> PRT
 <213> Homo sapiens

<400> 4554
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 20 25 30
 Glu Ile Arg Pro Trp Phe Thr Pro Arg Ser Ile Tyr Met Glu Ala Ser
 35 40 45
 Thr Val Asp Cys Asn Asp Leu Gly Leu Leu Thr Phe Pro Ala Arg Leu
 50 55 60
 Pro Ala Asn Thr Gln Ile Leu Leu Leu Gln Thr Asn Asn Ile Ala Lys
 65 70 75 80
 Ile Glu Tyr Ser Thr Asp Phe Pro Val Asn Leu Thr Gly Leu Asp Leu
 85 90 95
 Ser Gln Asn Asn Leu Ser Ser Val Thr Asn Ile Asn Val Lys Lys Met
 100 105 110
 Pro Gln Leu Leu Ser Val Tyr Leu Glu Glu Asn Lys Leu Thr Glu Leu
 115 120 125
 Pro Glu Lys Cys Leu Ser Glu Leu Ser Asn Leu Gln Glu Leu Tyr Ile
 130 135 140
 Asn His Asn Leu Leu Ser Thr Ile Ser Pro Gly Ala Phe Ile Gly Leu
 145 150 155 160
 His Asn Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu Gln Met Ile
 165 170 175
 Asn Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile Leu Met Ile
 180 185 190
 Gly Glu Asn Pro Ile Ile Arg Ile Lys Asp Met Asn Phe Lys Pro Leu
 195 200 205
 Ile Asn Leu Arg Ser Leu Val Ile Ala Gly Ile Asn Leu Thr Glu Ile
 210 215 220
 Pro Asp Asn Ala Leu Val Gly Leu Glu Asn Leu Glu Ser Ile Ser Phe
 225 230 235 240
 Tyr Asp Asn Arg Leu Ile Lys Val Pro His Val Ala Leu Gln Lys Val
 245 250 255
 Val Asn Leu Lys Phe Leu Asp Leu Asn Lys Asn Pro Ile Asn Arg Ile
 260 265 270
 Arg Arg Gly Asp Phe Ser Asn Met Leu His Leu Lys Glu Leu Gly Ile
 275 280 285
 Asn Asn Met Pro Glu Leu Ile Ser Ile Asp Ser Leu Ala Val Asp Asn
 290 295 300
 Leu Pro Asp Leu Arg Lys Ile Glu Ala Thr Asn Asn Pro Arg Leu Ser
 305 310 315 320
 Tyr Ile His Pro Asn Ala Phe Phe Arg Leu Pro Lys Leu Glu Ser Leu
 325 330 335
 Met Leu Asn Ser Asn Ala Leu Ser Ala Leu Tyr His Gly Thr Ile Glu

340 345 350
 Ser Leu Pro Asn Leu Lys Glu Ile Ser Ile His Ser Asn Pro Ile Arg
 355 360 365
 Cys Asp Cys Val Ile Arg Trp Met Asn Met Asn Lys Thr Asn Ile Arg
 370 375 380
 Phe Met Glu Pro Asp Ser Leu Phe Cys Val Asp Pro Pro Glu Phe Gln
 385 390 395 400
 Gly Gln Asn Val Arg Gln Val His Phe Arg Asp Met Met Glu Ile Cys
 405 410 415
 Leu Pro Leu Ile Ala Pro Glu Ser Phe Pro Ser Asn Leu Asn Val Glu
 420 425 430
 Ala Gly Ser Tyr Val Ser Phe His Cys Arg Ala Thr Ala Glu Pro Gln
 435 440 445
 Pro Glu Ile Tyr Trp Ile Thr Pro Ser Gly Gln Lys Leu Leu Pro Asn
 450 455 460
 Thr Leu Thr Asp Lys Phe Tyr Val His Ser Glu Gly Thr Leu Asp Ile
 465 470 475 480
 Asn Gly Val Thr Pro Lys Glu Gly Gly Leu Tyr Thr Cys Ile Ala Thr
 485 490 495
 Asn Leu Val Gly Ala Asp Leu Lys Ser Val Met Ile Lys Val Asp Gly
 500 505 510
 Ser Phe Pro Gln Asp Asn Asn Gly Ser Leu Asn Ile Lys Ile Arg Asp
 515 520 525
 Ile Gln Ala Asn Ser Val Leu Val Ser Trp Lys Ala Ser Ser Lys Ile
 530 535 540
 Leu Lys Ser Ser Val Lys Trp Thr Ala Phe Val Lys Thr Glu Asn Ser
 545 550 555 560
 His Ala Ala Gln Ser Ala Arg Ile Pro Ser Asp Val Lys Val Tyr Asn
 565 570 575
 Leu Thr His Leu Asn Pro Ser Thr Glu Tyr Lys Ile Cys Ile Asp Ile
 580 585 590
 Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr
 595 600 605
 Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr
 610 615 620
 Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile
 625 630 635 640
 Cys Leu Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp Gly Gly His
 645 650 655
 Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu
 660 665 670
 Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser
 675 680 685
 Thr Ser Leu Lys Val Lys Ala Thr Val Ile Gly Leu Pro Thr Asn Met
 690 695 700
 Ser
 705

<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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 120
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 180
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 300
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<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
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Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
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 Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
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 Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Pro	Cys	Asp	Pro	Asp	Arg	Asp	Gln	Arg	Tyr	Leu	Thr	Thr	Tyr	Asn	Gln
		35				40					45				
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	50				55					60					
Arg	Gly	Gly	Ile	Gln	Pro	Gln	Met	Pro	Gly	Gly	Tyr	Ala	Leu	Ser	Gln
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<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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3758

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 580 585 590
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 625 630 635 640
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Leu Pro Ala Ser Gln Arg Thr Gly Pro Gln Asn Gly Trp Asn Asp Pro
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His Ile Val Ser Thr Ser Asn Phe Ser Glu Thr Ser Ala Phe Met Pro
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 <212> DNA
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 Glu Ile Gln Arg Lys Ser Gly Tyr Ala Ile Gln Ala Asp Glu Glu Gln
 245 250 255
 Leu Arg Val Gln Leu Asp Thr Ile Gln Gly Glu Leu Asn Ala Pro Thr
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 Asn His Phe Gly Ala Val Arg Ser Glu Glu Arg Tyr Tyr Ile Asp Ala
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 Asp Leu Leu Arg Glu Ile Lys Gln His Leu Lys Gln Gln Gln Glu Gly
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Phe Ser

<210> 4565
<211> 2344
<212> DNA
<213> Homo sapiens

<400> 4565
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<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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<210> 4568
 <211> 120
 <212> PRT
 <213> Homo sapiens

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 Val Gln Gln Arg Glu Leu Ala Val Thr Ser Pro Lys Asp Gly Ser Ile
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 Ser Ile Leu Gly Ser Asp Asp Ala Thr Thr Cys His Ile Val Val Leu
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 Arg His Thr Gly Asn Gly Ala Thr Cys Leu Thr His Cys Asp Gly Thr
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 <211> 1797
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<210> 4570

<211> 141
 <212> PRT
 <213> Homo sapiens

<400> 4570

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      20           25           30
Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
      35           40           45
Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
      50           55           60
Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
      65           70           75           80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
      85           90           95
Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
      100          105          110
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Lys Gly Trp Arg Ala Ala Gly Arg Gln Pro Ser Thr Arg
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<210> 4571
 <211> 1084
 <212> DNA
 <213> Homo sapiens

<400> 4571

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720

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<210> 4572
 <211> 126
 <212> PRT
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 35 40 45
 Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile Asp
 50 55 60
 Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe Ser
 65 70 75 80
 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr
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<210> 4573
 <211> 309
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 <213> Homo sapiens

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<211> 103
<212> PRT
<213> Homo sapiens

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35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
65 70 75 80
Ala Arg Ile Ser Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr
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<210> 4575
<211> 1068
<212> DNA
<213> Homo sapiens

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<210> 4576
 <211> 107
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Leu Gly Gly Ala Ala Gln Arg Ala Arg Gly Gln Ser His Gly Gly
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 Thr Val Pro Gly Asn Ala Pro Ala Ala Asp Leu Leu Ala Leu Ser Pro
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<210> 4577
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 <213> Homo sapiens

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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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      20           25           30
Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
      35           40           45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
      50           55           60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
      65           70           75           80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
      85           90           95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
      100           105           110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
      115           120           125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
      130           135           140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
      145           150           155           160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
      165           170           175
Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
      180           185           190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
      195           200           205
Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
      210           215           220
Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
      225           230           235           240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
      245           250           255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
      260           265           270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
      275           280           285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
      290           295           300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
      305           310           315           320
Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
      325           330           335
Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
      340           345           350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
      355           360           365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
      370           375           380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
      385           390           395           400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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405 410 415
 Asp Asp Asp Val Ala Asp Gly Leu Ala Phe His Ala Lys Arg Ser Tyr
 420 425 430
 Gln Pro His Gly Arg Trp Ala Glu Arg Ala Gly Gln Glu Pro Leu Lys
 435 440 445
 Thr Ile Leu Asp Ala Gln Asp Leu Asp Cys Tyr Phe Thr Pro Met Lys
 450 455 460
 Pro Glu Ser Leu Glu Asn Ser Ile Leu Asp Ser Leu Glu Pro Gln Ser
 465 470 475 480
 Leu Ala Ser Leu Leu Ser Glu Gln Lys Glu Ser Ser Glu Ala Ser Glu
 485 490 495
 Leu Ile Leu Tyr Ser Leu Glu Ala Glu Val Thr Val Thr Gly Thr Asp
 500 505 510
 Ser Gln Tyr Cys Arg Lys Glu Val Glu Ala Gly Pro Gly Asp Gln Gln
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 Gly Asp Ser Tyr Leu Arg Val Ser Ser Asp Ser Pro Lys Asp Gln Ser
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 Pro Pro Glu Gly Pro Thr Glu Asp Glu Leu Ser Leu Pro Glu Gly Pro
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 Ser Val Pro Ser Ser Ser Leu Pro Gln Thr Pro Glu Gln Glu Lys Phe
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 Leu Arg His His Phe Glu Thr Leu Thr Glu Ser Pro Cys Arg Ala Leu
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 Gly Asp Val Glu Ala Ser Glu Ala Glu Asp His Phe Phe Asn Pro Arg
 595 600 605
 Leu Ser Ile Ser Thr Gln Phe Leu Ser Ser Leu Gln Lys Ala Ser Arg
 610 615 620
 Phe Thr His Thr Phe Pro Pro Arg Ala Thr Gln Cys Leu Val Lys Ser
 625 630 635 640
 Pro Glu Val Lys Leu Met Asp Arg Gly Gly Ser Gln Pro Arg Ala Gly
 645 650 655
 Thr Gly Tyr Ala Ser Pro Asp Arg Thr His Ser Val Pro Ser Ala Ser
 660 665 670
 Val Thr Ala Pro Cys Leu Thr Ser Leu Ala Ser Cys Val Pro Ala Ser
 675 680 685
 Ser Val Leu Pro Thr Asp Arg Asn Leu Pro Thr Pro Thr Ser Ala Pro
 690 695 700
 Thr Pro Gly Leu Ala Gln Gly Val His Ala Pro Ser Thr Cys Ser Tyr
 705 710 715 720
 Met Glu Ala Thr Ala Ser Ser Arg Ala Arg Ile Ser Arg Ser Ile Ser
 725 730 735
 Leu Gly Asp Ser Glu Gly Pro Ile Val Ala Thr Leu Ala Gln Pro Leu
 740 745 750
 Arg Arg Pro Ser Ser Val Gly Glu Leu Ala Ser Leu Gly Gln Glu Leu
 755 760 765
 Gln Ala Ile Thr Thr Ala Thr Thr Pro Ser Leu Asp Ser Glu Gly Gln
 770 775 780
 Glu Pro Ala Leu Arg Ser Trp Gly Asn His Glu Ala Arg Ala Asn Leu
 785 790 795 800
 Arg Leu Thr Leu Ser Ser Ala Cys Asp Gly Leu Leu Gln Pro Pro Val
 805 810 815
 Asp Thr Gln Pro Gly Val Thr Val Pro Ala Val Ser Phe Pro Ala Pro
 820 825 830
 Ser Pro Val Glu Glu Ser Ala Leu Arg Leu His Gly Ser Ala Phe Arg

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      835              840              845
Pro Ser Leu Pro Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser
      850              855              860
Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala
      865              870              875              880
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys
      885              890              895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro
      900              905              910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser
      915              920              925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp
      930              935              940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg
      945              950              955              960
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys
      965              970              975
Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His
      980              985              990
Gly Gly Thr Glu Gly Ala Ala Pro Pro Pro Gln Pro Cys Cys Phe
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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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120
accaactgca tgaagcagca cttgctggag attgaccacc ggcagcagca gcagcacaca
180
aatgacaaga agcggagtgg cccccccagg caggatacgt atgtgtccac acctagttag
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gaagagatgc tgaagacacc n
321

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<210> 4580

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4580

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Xaa Lys Met Phe Gly His Ser Glu Ile Ile Thr Ser Met Lys Phe Thr
  1              5              10              15
Tyr Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe
      20              25              30
Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu
      35              40              45
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

```


50						55						60					
Arg	Ser	Gly	Pro	Pro	Arg	Gln	Asp	Thr	Tyr	Val	Ser	Thr	Pro	Ser	Glu		
65					70					75				80			
Ile	His	Ser	Leu	Ser	Pro	Gly	Glu	Gln	Thr	Glu	Asp	Asp	Leu	Glu	Glu		
			85					90					95				
Glu	Cys	Glu	Pro	Glu	Glu	Met	Leu	Lys	Thr	Pro							
			100					105									

<210> 4581

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4581

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120
cgggagcgca ggtcagattc agaggaagag cgggtggcagc gctcagggat gcgaagccgg
180
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240
gagcagtcac ggggccagtg ggctcgccgg cgacggcgcg cacgctcgtg gtctcctagc
300
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1080
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1140
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1200

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 1260
 gacatgggct actgggagag cctcctgcag cagcttcgtg cccacatggc gcggggcccg
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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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Ser	Leu	Gln	Glu	Arg	Leu	Arg	Leu	Arg	Glu	Glu	Arg	Lys	Gln	Gln	Glu
		20						25					30		
Glu	Leu	Met	Lys	Ala	Phe	Glu	Thr	Pro	Glu	Glu	Lys	Arg	Ala	Arg	Arg
		35					40					45			
Leu	Ala	Lys	Lys	Glu	Ala	Lys	Glu	Arg	Lys	Lys	Arg	Glu	Lys	Met	Gly
	50					55					60				
Trp	Gly	Glu	Glu	Tyr	Met	Gly	Tyr	Thr	Asn	Thr	Asp	Asn	Pro	Phe	Gly
65				70					75					80	
Asp	Asn	Asn	Leu	Leu	Gly	Thr	Phe	Ile	Trp	Asn	Lys	Ala	Leu	Glu	Lys
			85					90					95		
Lys	Gly	Ile	Ser	His	Leu	Glu	Glu	Lys	Glu	Leu	Lys	Glu	Arg	Asn	Lys
		100						105					110		
Arg	Ile	Gln	Glu	Asp	Asn	Arg	Leu	Glu	Leu	Gln	Lys	Val	Lys	Gln	Leu
	115						120					125			
Arg	Leu	Glu	Arg	Glu	Arg	Glu	Lys	Ala	Met	Arg	Glu	Gln	Glu	Leu	Glu
	130					135					140				
Met	Leu	Gln	Arg	Val	Lys	Gly	Thr	Glu	His	Phe	Lys	Thr	Trp	Glu	Glu
145				150						155				160	
Gln	Glu	Asp	Asn	Phe	His	Leu	Gln	Gln	Ala	Lys	Leu	Arg	Ser	Lys	Ile
			165						170					175	
Arg	Ile	Arg	Asp	Gly	Arg	Ala	Lys	Pro	Ile	Asp	Leu	Leu	Ala	Lys	Tyr
		180						185					190		
Ile	Ser	Ala	Glu	Asp	Asp	Asp	Leu	Ala	Gly	Glu	Met	His	Glu	Pro	Tyr
	195						200					205			
Thr	Phe	Leu	Asn	Gly	Leu	Thr	Val	Ala	Asp	Met	Glu	Asp	Leu	Leu	Glu
	210					215					220				
Asp	Ile	Gln	Val	Tyr	Met	Glu	Leu	Glu	Gln	Gly	Lys	Asn	Ala	Asp	Phe
225				230						235				240	
Trp	Arg	Asp	Met	Thr	Thr	Ile	Thr	Glu	Asp	Glu	Ile	Ser	Lys	Leu	Arg
			245						250					255	
Lys	Leu	Glu	Ala	Ser	Gly	Lys	Gly	Pro	Gly	Glu	Arg	Arg	Glu	Gly	Val
		260						265					270		
Asn	Ala	Ser	Val	Ser	Ser	Asp	Val	Gln	Ser	Val	Phe	Lys	Gly	Lys	Thr
	275						280					285			
Tyr	Asn	Gln	Leu	Gln	Val	Ile	Phe	Gln	Gly	Ile	Glu	Gly	Lys	Ile	Arg
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Ala	Gly	Gly	Pro	Asn	Leu	Asp	Met	Gly	Tyr	Trp	Glu	Ser	Leu	Leu	Gln

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<210> 4583
<211> 3350
<212> DNA
<213> Homo sapiens
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3779

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<210> 4584

<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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			20					25					30		
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
		35					40					45			
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
	50					55					60				
Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
65					70					75				80	
Asp	Ser	His	Ala	Ser	Leu	Arg	Asp	Ser	Leu	Leu	Thr	His	Ile	Gln	Asn
			85					90						95	
Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
			100					105					110		
Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
		115					120					125			
Leu	Val	Glu	Lys	Tyr	Ser	Asn	Asp	Val	Thr	Ser	Leu	Pro	Phe	Leu	Leu
	130					135					140				
Glu	Ile	Leu	Thr	Val	Leu	Pro	Glu	Glu	Val	His	Ser	Arg	Ser	Leu	Arg
145					150					155				160	
Ile	Gly	Ala	Asn	Arg	Arg	Thr	Glu	Ile	Ile	Glu	Asp	Leu	Ala	Phe	Tyr
			165					170						175	
Ser	Ser	Thr	Val	Val	Ser	Leu	Leu	Met	Thr	Cys	Val	Glu	Lys	Ala	Gly
			180					185					190		
Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
		195					200						205		
Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
	210					215					220				
Leu	Ala	Leu	Leu	Phe	Glu	Val	Leu	Gln	Gln	Asp	Lys	Thr	Ser	Ser	Asn

3782

660 665 670
 Val Gly Lys Gly Ser Ala Ala Leu Leu Gln Pro Leu Val Thr Gln Met
 675 680 685
 Val Asn Val Tyr His Val His Gln His Ser Cys Phe Leu Tyr Leu Gly
 690 695 700
 Ser Ile Leu Val Asp Glu Tyr Gly Met Glu Glu Gly Cys Arg Gln Gly
 705 710 715 720
 Leu Leu Asp Met Leu Gln Ala Leu Cys Ile Pro Thr Phe Gln Leu Leu
 725 730 735
 Glu Gln Gln Asn Gly Leu Gln Asn His Pro Asp Thr Val Asp Asp Leu
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 Phe Arg Leu Ala Thr Arg Phe Ile Gln Arg Ser Pro Val Thr Leu Leu
 755 760 765
 Arg Ser Gln Val Val Ile Pro Ile Leu Gln Trp Ala Ile Ala Ser Thr
 770 775 780
 Thr Leu Asp His Arg Asp Ala Asn Cys Ser Val Met Arg Phe Leu Arg
 785 790 795 800
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 Leu Val Ser Gln Leu Leu His Thr Cys Cys Phe Cys Leu Pro Pro Tyr
 835 840 845
 Thr Leu Pro Asp Val Ala Glu Val Leu Trp Glu Ile Met Gln Val Asp
 850 855 860
 Arg Pro Thr Phe Cys Arg Trp Leu Glu Asn Ser Leu Lys Gly Leu Pro
 865 870 875 880
 Lys Glu Thr Thr Val Gly Ala Val Thr Val Thr His Lys Gln Leu Thr
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<210> 4585

<211> 1952

<212> DNA

<213> Homo sapiens

<400> 4585

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<210> 4586

<211> 530
 <212> PRT
 <213> Homo sapiens

<400> 4586

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Ile Leu Asp Leu Ser Glu Ser Gly Leu Cys Arg Leu Glu Glu Val Phe
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Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
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Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
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Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
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Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
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Thr Leu Arg Asp Leu Pro Ser Pro Gly Leu Glu Leu Ser Gly Asp His
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Ala Ser Asn Gln Gly Ala Val Asn Ala Gln Asp Pro Glu Gly Ala Val
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          435          440          445
Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
          450          455          460
Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
465          470          475          480
Leu Lys Leu Lys Leu Gly Leu Thr Leu Asn Lys Asp Arg Arg Arg Ala
          485          490          495
Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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Asn Thr Phe Phe Asn Thr Lys Tyr Gly Glu Ser Gly Asn Val Arg Arg
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Tyr Gln
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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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			20					25				30		
Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys
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Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser
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Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala
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Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly
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Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser
			100					105				110		
Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
			115				120				125			
Asn	Ala	Pro	Gln	Asn	Ser	Thr	Gln	Ala	His	Ser	Glu	Asn	Lys	Cys

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 Met Val Gly Thr Gly Pro Lys Gly His Val Ser Ser Leu Ala Arg Cys
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 Ser Ile Val Asn Tyr Asn Gly Asp Val Leu Tyr Asp Glu Tyr Ile Leu
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 Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg
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 Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln
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<210> 4589

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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<211> 121
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 35 40 45
 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
 50 55 60
 Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
 65 70 75 80
 Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr
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 <213> Homo sapiens

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      35           40           45
Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys
      50           55           60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser
      65           70           75           80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln
      85           90           95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly
      100          105          110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys
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<210> 4593

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<212> DNA

<213> Homo sapiens

<400> 4593

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<210> 4594
 <211> 1145
 <212> PRT
 <213> Homo sapiens

<400> 4594
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 35 40 45
 Thr Val Thr Ser Lys Val Ala Pro Ser Trp Pro Glu Ser His Ser Ser
 50 55 60
 Ala Asp Ser Ala Ser Leu Ala Lys Lys Lys Pro Leu Phe Ile Thr Thr
 65 70 75 80
 Asp Ser Ser Lys Leu Val Ser Gly Val Leu Gly Ser Ala Leu Thr Ser
 85 90 95
 Gly Gly Pro Ser Leu Ser Ala Met Gly Asn Gly Arg Ser Ser Ser Pro
 100 105 110
 Thr Ser Ser Leu Thr Gln Pro Ile Glu Met Pro Thr Leu Ser Ser Ser
 115 120 125
 Pro Thr Glu Glu Arg Pro Thr Val Gly Pro Gly Gln Gln Asp Asn Pro
 130 135 140
 Leu Leu Lys Thr Phe Ser Asn Val Phe Gly Arg His Ser Gly Gly Phe
 145 150 155 160
 Leu Ser Ser Pro Ala Asp Phe Ser Gln Glu Asn Lys Ala Pro Phe Glu
 165 170 175
 Ala Val Lys Arg Phe Ser Leu Asp Glu Arg Ser Leu Ala Cys Arg Gln

3794

610	615	620
Gly Ser Leu Arg Ser Val Leu Asn Lys Glu Ser His Ser Pro Phe Gly		
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Leu Asp Ser Phe Asn Ser Thr Ala Lys Val Ser Pro Leu Thr Pro Lys		640
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Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr		655
	660	665
Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
	675	680
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
	690	695
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
705	710	715
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
	725	730
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
	740	745
Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
	755	760
Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn		765
	770	775
Asn Trp Lys Ile Phe Arg Glu Cys Trp Lys Gln Gly Gln Pro Val Leu		780
785	790	795
Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
	805	810
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
	820	825
Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp		830
	835	840
Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
	850	855
Met Val Leu Lys Leu Lys Asp Trp Pro Pro Gly Glu Asp Phe Arg Asp		860
865	870	875
Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro		880
	885	890
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
	900	905
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
	915	920
Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
	930	935
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro		940
945	950	955
Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu		960
	965	970
Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu		975
	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
	995	1000
Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
	1010	1015
Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		1020
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Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

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Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro					
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His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe					
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Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe					
	1090		1095		1100
Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val					
1105		1110		1115	1120
Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys					
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Ala His Glu Ser Lys Leu Ala Arg Ser					
	1140		1145		

<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596

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Phe Leu Gly Thr Ser Ile Ser Ser Ser Ser Trp Ala Pro Leu Arg
      35           40           45
Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
      50           55           60
Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
      65           70           75           80
Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
      85           90           95
Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
      100          105          110
Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
      115          120          125
Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 4597

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<210> 4598

<211> 135
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 <213> Homo sapiens

<400> 4598
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 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
 Pro Leu Val Leu Gln Ser Leu Ala Arg Arg Ile Ser Ser Thr Trp Leu
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 Val Asp Gln Ser Leu Arg Glu
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<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

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<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 20 25 30
 Ile Met Asn Tyr Leu Val Thr Glu Gly Phe Lys Glu Ala Ala Glu Lys
 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
 195 200 205
 Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
 210 215 220
 Glu Glu Pro Lys
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<210> 4601
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 <212> DNA
 <213> Homo sapiens

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<210> 4602
 <211> 305
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Phe Arg Glu Val
 50 55 60
 Phe Lys Lys Asn Ile Glu Lys Arg Val Arg Ser Leu Pro Glu Ile Asp
 65 70 75 80
 Gly Leu Ser Lys Glu Thr Val Leu Ser Ser Trp Ile Ala Lys Tyr Asp
 85 90 95
 Ala Ile Tyr Arg Gly Glu Glu Asp Leu Cys Lys Gln Pro Asn Arg Met
 100 105 110
 Ala Leu Ser Ala Val Ser Glu Leu Ile Leu Ser Lys Glu Gln Leu Tyr
 115 120 125
 Glu Met Phe Gln Gln Ile Leu Gly Ile Lys Lys Leu Glu His Gln Leu
 130 135 140
 Leu Tyr Asn Ala Cys Gln Leu Asp Asn Ala Asp Glu Gln Ala Ala Gln
 145 150 155 160
 Ile Arg Arg Glu Leu Asp Gly Arg Leu Gln Leu Ala Asp Lys Met Ala
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 180 185 190
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<400> 4603
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960

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<210> 4604
 <211> 666
 <212> PRT
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<400> 4604
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 35 40 45
 Glu Ser Glu Ser Pro Gln Glu Ala Gly Arg Gly His Pro Ser Phe Leu
 50 55 60
 Pro Gln Gln Lys Glu Ser Ser Glu Ala Ser Glu Leu Ile Leu Tyr Ser

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Lys	Glu	Val	Glu	Ala	Gly	Pro	Gly	Asp	Gln	Gln	Gly	Asp	Ser	Tyr Leu
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Arg	Val	Ser	Ser	Asp	Ser	Pro	Lys	Asp	Gln	Ser	Pro	Pro	Glu	Asp Ser
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Gly	Glu	Ser	Glu	Ala	Asp	Leu	Glu	Cys	Ser	Phe	Ala	Ala	Ile	His Ser
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<210> 4605

<211> 2998

<212> DNA

<213> Homo sapiens

<400> 4605

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<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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		35					40					45		Asp
Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly
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Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val
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			100					105					110	Val
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys
		115					120					125		Gly
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val
		130				135					140			Ile
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu
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Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu
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Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val
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Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile
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Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
305              310              315              320
Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn
      325              330              335
Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys
      340              345              350
Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly
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      420              425              430
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Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile
465              470              475              480
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Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
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Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys
      515              520              525
Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe
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Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp
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<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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 <213> Homo sapiens

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 35 40 45
 Leu Val Asn Glu Glu Arg Thr Leu Glu Val Glu Ile Glu Pro Gly Val
 50 55 60
 Arg Asp Gly Met Glu Tyr Pro Phe Ile Gly Glu Gly Glu Pro His Val
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 Asn Phe Ser Ser Gly Arg Arg Gly Ala Thr Ser Ala Glu Ala Phe Leu
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 Pro Tyr Ala His Arg Phe Pro Pro Gln Thr Trp Leu Ser Ala Leu Arg
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<210> 4611

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 4611

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<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
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Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
		100					105					110			
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
		115					120				125				
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
	130					135				140					
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
145					150				155					160	
Glu	Phe	Gln	His	Ala	Met	Gly	Gly	Val	Pro	Ala	Trp	Ala	Glu	Thr	Thr

165 170 175
 Lys Arg Lys Thr Ser Ser Asp Asp Glu Ser Glu Glu Asp Glu Asp Asp
 180 185 190
 Leu Leu Gln Arg Thr Gly Asn Phe Ile Ser Thr Ser Thr Ser Leu Pro
 195 200 205
 Arg Gly Ile Leu Lys Met Lys Asn Cys Gln His Ala Asn Ala Glu Arg
 210 215 220
 Pro Thr Val Ala Arg Ile Ser Ser Val Gln Phe His Pro Gly Ala Gln
 225 230 235 240
 Ile Val Met Val Ala Gly Leu Asp Asn Ala Val Ser Leu Phe Gln Val
 245 250 255
 Asp Gly Lys Thr Asn Pro Lys Ile Gln Ser Ile Tyr Leu Glu Arg Phe
 260 265 270
 Pro Ile Phe Lys Ala Cys Phe Ser Ala Asn Gly Glu Glu Val Leu Ala
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 Thr Ser Thr His Ser Lys Val Leu Tyr Val Tyr Asp Met Leu Ala Gly
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 Lys Leu Ile Pro Val His Gln Val Arg Gly Leu Lys Glu Lys Ile Val
 305 310 315 320
 Arg Ser Phe Glu Val Ser Pro Asp Gly Ser Phe Leu Leu Ile Asn Gly
 325 330 335
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 355 360 365
 Asp Ser Lys Lys Val Tyr Ala Ser Ser Gly Asp Gly Glu Val Tyr Val
 370 375 380
 Trp Asp Val Asn Ser Arg Lys Cys Leu Asn Arg Phe Val Asp Glu Gly
 385 390 395 400
 Ser Leu Tyr Gly Leu Ser Ile Ala Thr Ser Arg Asn Gly Gln Tyr Val
 405 410 415
 Ala Cys Gly Ser Asn Cys Gly Val Val Asn Ile Tyr Asn Gln Asp Ser
 420 425 430
 Cys Leu Gln Glu Thr Asn Pro Lys Pro Ile Lys Ala Ile Met Asn Leu
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 Val Thr Gly Val Thr Ser Leu Thr Phe Asn Pro Thr Thr Glu Ile Leu
 450 455 460
 Ala Ile Ala Ser Glu Lys Met Lys Glu Ala Val Arg Leu Val His Leu
 465 470 475 480
 Pro Ser Cys Thr Val Phe Ser Asn Phe Pro Val Ile Lys Asn Lys Asn
 485 490 495
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 Tyr Ser Asp Phe
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<210> 4613

<211> 454

<212> DNA

<213> Homo sapiens

<400> 4613

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 180
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 tgacgttggg gccagacagg tgacaggaga gggagttggg cctcgtggg atagtggcaa
 360
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<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35				40						45			
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
	50				55				60						
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65				70					75					80	
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
			85					90					95		
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
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Ser	Val	Ser	Leu	Leu											
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<212> DNA

<213> Homo sapiens

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 240

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 480
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 720
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 780
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 840
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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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 20 25 30
 Arg Lys Asp Met Asp Glu Val Glu Glu Lys Ser Lys Asp Val Ile Asn
 35 40 45
 Phe Thr Ala Glu Lys Leu Ser Val Asp Glu Val Ser Gln Leu Val Ile
 50 55 60
 Ser Pro Leu Cys Gly Ala Ile Ser Leu Phe Val Gly Thr Thr Arg Asn

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<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

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<210> 4620
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<213> Homo sapiens
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<400> 4620

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 35 40 45
 Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
 50 55 60
 Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
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 Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
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 Tyr Leu Asn Gln Glu Val Pro
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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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<211> 403
<212> PRT
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<400> 4622
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35 40 45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
50 55 60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
65 70 75 80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
85 90 95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
100 105 110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
115 120 125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
130 135 140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
145 150 155 160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
165 170 175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
180 185 190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
195 200 205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
210 215 220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
225 230 235 240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
245 250 255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
260 265 270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
275 280 285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
290 295 300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
305 310 315 320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
325 330 335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
340 345 350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

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 2160
 gcagctgtag gcagagaggt gtctgagttg ttaccaaaca catgtgactg agctgctgct
 2220

<210> 4624
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 4624
 Met Lys Ser Lys Lys Lys Val Glu Gln Pro Val Ile Glu Glu Pro Ala
 1 5 10 15
 Leu Lys Arg Lys Lys Lys Lys Lys Arg Lys Glu Ser Gly Val Ala Gly
 20 25 30
 Asp Pro Trp Lys Glu Glu Thr Asp Thr Asp Leu Glu Val Val Leu Glu
 35 40 45
 Lys Lys Gly Asn Met Asp Glu Ala His Ile Asp Gln Val Arg Arg Lys
 50 55 60
 Ala Leu Gln Glu Glu Ile Asp Arg Glu Ser Gly Lys Thr Glu Ala Ser
 65 70 75 80
 Glu Thr Arg Lys Trp Thr Gly Thr Gln Phe Gly Gln Trp Asp Thr Ala
 85 90 95
 Gly Phe Glu Asn Glu Asp Gln Lys Leu Lys Phe Leu Arg Leu Met Gly

```

          100          105          110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
          115          120          125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
          130          135          140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
145          150          155          160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
          165          170          175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
          180          185

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<210> 4625
 <211> 334
 <212> DNA
 <213> Homo sapiens

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<400> 4625
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120
ctggaggagc agcggcagtc agaacgtctc cagaggcagc tgcagcagga gcatgcctac
180
ctaaagtccc tgcagcagca gcaacagcag cagcagcttc agaaacagca gcagcagcag
240
ctcctgcctg gggacaggaa gcccctgtac cattatgggc ggggcatgaa tcccgtgac
300
aaaccagcct gggcccgaga gggagaagag agac
334

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<210> 4626
 <211> 111
 <212> PRT
 <213> Homo sapiens

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<400> 4626
Arg Glu Gln Arg Lys Leu Gln Glu Lys Glu Gln Gln Arg Arg Leu Glu
1      5      10      15
Asp Met Gln Ala Leu Arg Arg Glu Glu Arg Arg Gln Ala Glu Arg
20     25     30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
35     40     45
Arg Leu Gln Arg Gln Leu Gln Gln Glu His Ala Tyr Leu Lys Ser Leu
50     55     60
Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln
65     70     75     80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
85     90     95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
100    105    110

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<210> 4627
 <211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
gtgcacgccc ggagtttggga gcctcttcca tcaagtggac ctgatttttg aggattagga
180
gaagaagctg aatttgttga agttgagcct gaagctaaac aggaaattct tgaaaacaaa
240
gatgtgggtt ttcaacatgt tcattttgat ggacttggaa ggactaaaga tgatatcatc
300
atattgtgaaa ttggagatgt tttcaaggcc aaaaaccta ttgaggtaat gcggaaatct
360
catgaagccc gtgaaaaatt gtcctgtctt ggaattttta gacaagtgga tgttttgatt
420
gacacatgtc aaggtgatgg cgcacttcca aatgggttag acgttacctt tgaagtaact
480
gaattgagga gattaacggg cagtataac accatgggtg ggaacaatga aggcagtatg
540
gtacttggcc tcaagcttcc taatcttctt ggtcgtgcag aaaagggtgac ctttcagttt
600
tcctatggaa caaaagaaac ttcgtatggc ctgtccttct tcaaaccacg gcccggaac
660
ttcgaaagaa atttctctgt aaacttatat aaagttactg gacagttccc ttggagctca
720
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780
cacactgtca agtgggaagg cgtatggcga gaactgggct gcctctcaag gacggcgtca
840
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900
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960
gaactggcag gctacactgg cggggatgtg agcttcatca aagaagattt tgaacttcag
1020
ttgaacaagc aactcatatt tgattcagtt ttttcagcgt ctttctgggg cggaatgttg
1080
gtacccattg gtgataagcc gtcaagcatt gctgataggt tttaccttgg gggaccaca
1140
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1200
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1260
cagggtggct ttggagaact tttccgaaca cacttctttc tcaacgcagg aaacctctgc
1320
aacctcaact atggggaggg ccccaaagct catattcgta agctgggtga gtgcatccgc
1380
tggtcgtacg gggccgggat tgctctcagg cttggcaaca tcgctcggtt ggaacttaat
1440
tactgcgtcc ccatgggagt acagacaggc gacaggatat gtgatggcgt ccagtttggg
1500

gctgggataa gggtcctgta gccgacaccc ctacaggaga agctctggga ctggggcagc
 1560
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 1680
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 1736

<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

Met	Gly	Thr	Val	His	Ala	Arg	Ser	Leu	Glu	Pro	Leu	Pro	Ser	Ser	Gly
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Pro	Asp	Phe	Gly	Gly	Leu	Gly	Glu	Glu	Ala	Glu	Phe	Val	Glu	Val	Glu
			20					25					30		
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
			35				40						45		
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
			50			55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65					70					75				80	
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
				85					90					95	
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
			100					105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
			115				120					125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
			130			135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
145					150					155				160	
Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
				165					170					175	
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
			180				185						190		
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
			195				200					205			
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
			210			215					220				
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225					230					235				240	
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
				245					250					255	
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
			260					265					270		
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
			275				280						285		
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
			290				295				300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly

<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630
 Met Val Asn Arg Glu Arg Glu Gly Gly Pro Trp Lys Cys Val Trp Val
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 Leu Gly Gly Pro Pro Glu Trp Gly Glu Leu Arg Ala Asp Ser Ser Ser
 20 25 30
 Arg Asp Gln Gly Ala Leu Ser Leu Ser Arg Met Gly Arg Asp Ala Ser
 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

<400> 4631
 cggccgcccgg agcgctttgg gaaggcgacac ggggccaaga tggcgccgga ggcacaggag
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 gcgctgaggg agttcgtggc ggtgacgggc gccgaggagg accgggcccc cttctttctc
 120
 gagtcggccg gctgggactt gcagatcgcg ctagcgagct tttatgagga cggaggggat
 180
 gaagacattg tgaccatttc gcaggcaacc cccagttcag tgtccagagg cacagcccc
 240
 agtgataata gaggacatc cttcagagac ctcattcatg accaagatga agatgaggag
 300
 gaagaggaag gccagaggag caggttttat gctgggggct cagagagaag tggacagcag
 360
 attgttggcc ctcccaggaa gaaaagtccc aacgagctgg tggatgatct ctttaaaggt
 420
 gccaaagagc atggagctgt agctgtggag cgagtgaaca agagccctgg agagaccagt
 480
 aaaccgagac catttgcagg aggtggctac cgccttgggg cagcaccaga ggaagagtct
 540
 gcctatgtgg caggagaaaa gaggcagcat tccagccaag atgttcatgt agtattgaaa
 600
 ctctggaaga gtggattcag cctggataat ggagaactca gaagctacca agacccatcc
 660
 aatgccagct ttctggagtc tatccgcaga ggggaggtgc cagcagagct tcggaggcta
 720

gctcacggtg gacaggtgaa cttggatatg gaggaccatc gggacgagga ctttgtgaag
780
cccaaaggag ctttcaaagc cttcactggc gagggtcaga aactgggcag cactgcccc
840
caggtgttga gtaccagctc tccagcccaa caggcagaaa atgaagccaa agccagctct
900
tccatcttaa tcgacgaatc agagcctacc acaaacatcc aaattcggct tgcagacggc
960
gggaggctgg tgcagaaatt taaccacagc cacaggatca gcgacatccg actcttcac
1020
gtggatgccc ggccagccat ggctgccacc agctttatcc tcatgactac tttcccgaac
1080
aaagagctgg ctgatgagag ccagaccctg aaggaagcca acctgctcaa tgctgtcatc
1140
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1320
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1380
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1440
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1560
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1980
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2340

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 2460
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 2520
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 2580
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 2640
 ggtgttttct ccagcaggtg gagattatgg aacctacata tgggtctgga aaaactgtac
 2700
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 2756

<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

Met Ala Ala Glu Arg Gln Glu Ala Leu Arg Glu Phe Val Ala Val Thr
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 Gly Ala Glu Glu Asp Arg Ala Arg Phe Phe Leu Glu Ser Ala Gly Trp
 20 25 30
 Asp Leu Gln Ile Ala Leu Ala Ser Phe Tyr Glu Asp Gly Gly Asp Glu
 35 40 45
 Asp Ile Val Thr Ile Ser Gln Ala Thr Pro Ser Ser Val Ser Arg Gly
 50 55 60
 Thr Ala Pro Ser Asp Asn Arg Val Thr Ser Phe Arg Asp Leu Ile His
 65 70 75 80
 Asp Gln Asp Glu Asp Glu Glu Glu Glu Glu Gly Gln Arg Ser Arg Phe
 85 90 95
 Tyr Ala Gly Gly Ser Glu Arg Ser Gly Gln Gln Ile Val Gly Pro Pro
 100 105 110
 Arg Lys Lys Ser Pro Asn Glu Leu Val Asp Asp Leu Phe Lys Gly Ala
 115 120 125
 Lys Glu His Gly Ala Val Ala Val Glu Arg Val Thr Lys Ser Pro Gly
 130 135 140
 Glu Thr Ser Lys Pro Arg Pro Phe Ala Gly Gly Gly Tyr Arg Leu Gly
 145 150 155 160
 Ala Ala Pro Glu Glu Glu Ser Ala Tyr Val Ala Gly Glu Lys Arg Gln
 165 170 175
 His Ser Ser Gln Asp Val His Val Val Leu Lys Leu Trp Lys Ser Gly
 180 185 190
 Phe Ser Leu Asp Asn Gly Glu Leu Arg Ser Tyr Gln Asp Pro Ser Asn
 195 200 205
 Ala Gln Phe Leu Glu Ser Ile Arg Arg Gly Glu Val Pro Ala Glu Leu
 210 215 220
 Arg Arg Leu Ala His Gly Gly Gln Val Asn Leu Asp Met Glu Asp His
 225 230 235 240
 Arg Asp Glu Asp Phe Val Lys Pro Lys Gly Ala Phe Lys Ala Phe Thr
 245 250 255
 Gly Glu Gly Gln Lys Leu Gly Ser Thr Ala Pro Gln Val Leu Ser Thr

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                260                265                270
Ser Ser Pro Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ser
                275                280                285
Ile Leu Ile Asp Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu
                290                295                300
Ala Asp Gly Gly Arg Leu Val Gln Lys Phe Asn His Ser His Arg Ile
305                310                315                320
Ser Asp Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala
                325                330                335
Thr Ser Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp
                340                345                350
Glu Ser Gln Thr Leu Lys Glu Ala Asn Leu Leu Asn Ala Val Ile Val
                355                360                365
Gln Arg Leu Thr
                370

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<210> 4633
 <211> 873
 <212> DNA
 <213> Homo sapiens

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<400> 4633
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120
ctgcctccag acgctggcac tgaggggggc caccgtcagg cactcagtca ggctgctcag
180
gagctctttc ttcattctcag ggggacagct aggggtggct ctggacagga aagaagggaa
240
gtaggtatgc aggggtggaat ccggctttgc tccaaatgcc agcactttca gtcgggggta
300
gagctgacac agctgctcct gcaggctggg tgtcagggag ttgttcggca tataggcaaa
360
gtccagaagt gggaagaagt ccttggggcc aatcatgccg aagcccttgg taaggttggg
420
atgcatcagg agcagccgat ccaggtatgt gatggcaaag ggagacagag acttgatgcc
480
cagcacaggc agcatgatcc ccagccacac tttcagtccc tcggtgaggt tggcaaaacc
540
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600
cagcagttcc aggaacttgc ctaggtttgc cgtggcaatc ttgggcttgt cttgcaggat
660
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720
caacatggtg aacagacagt gggccctggg tcaagcaggt tttgccaacc tcaactgagg
780
actgaaagtg tggctgggga tcatgctgcc tgtgctgggc atcaagtctc tgtctccctt
840
tgccatcacc cccttcacgc ggtcggagag agc
873

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<210> 4634

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634
 Met Leu Gln Glu Leu Asp Lys Thr Pro Gly Glu Ser Leu His Gly Tyr
 1 5 10 15
 Arg Ile Cys Ile Gln Ala Ile Leu Gln Asp Lys Pro Lys Ile Ala Thr
 20 25 30
 Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
 35 40 45
 Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50 55 60
 Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65 70 75 80
 Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85 90 95
 Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100 105 110
 Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115 120 125
 Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130 135 140
 Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145 150 155 160
 Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165 170 175
 Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180 185 190
 Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195 200 205
 Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
 210 215 220
 Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
 225 230 235 240
 Lys Leu

<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 4635
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 120
 agtggggccc gaggaggaag gccggtggtg tgtgggcaga gccagccagt ggtggccttc
 180
 ctccctcccga agatgagttt tgtagcccag gtgtttgcac actcacactt gctcactccc
 240
 tcacacacaa aaccctcact ctttgctttt tctggggaga gggaggccac tggcagaagc
 300

gcctaccctg gccacagtca gttcccatc tcattttcta agaattttat cacaaaacag
 360
 tttgtcttga ggctgagatg gggg
 384

<210> 4636
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 4636
 Met Leu Gly Gly Pro Val Cys Ser Tyr Glu Leu Gly Gly Cys Pro Val
 1 5 10 15
 Thr Arg Val Leu Gly Gln Pro Arg Lys Leu Phe Ser Ile Gly Trp Gly
 20 25 30
 Lys Glu Val Lys Trp Gly Pro Arg Arg Lys Ala Gly Gly Val Trp Ala
 35 40 45
 Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
 50 55 60
 Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
 65 70 75 80
 Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
 85 90 95
 Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe
 100 105

<210> 4637
 <211> 2162
 <212> DNA
 <213> Homo sapiens

<400> 4637
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 gagccccga tggaggccga ggccgaggac gtcccccgg gcgggggtga gtcggcgctc
 120
 agctgcttct ctttcaacca ggactgcaca tccctagcaa ttggaactaa agccgggtat
 180
 aagctgtttt ctctgagttc tgtggagcag ctggatcaag tccacggaag caatgaaatc
 240
 ccggacgtct acatcgtgga gcgcctcttc tccagcagcc tgggtgggtt agtcagtcac
 300
 acaaaaaccac ggcagatgaa cgtgtatcac ttcaagaaag gcacagagat ctgtaattac
 360
 agctactcca gcaacatctt gtccataagg ctgaaccggc aaaggctgct ggtttgcta
 420
 gaagagtcca tttatattca caacattaaa gacatgaagc tgttgaagac ctcctggat
 480
 attcctgcaa acccaacagg tctatgtgct ctctctatca accattccaa ttcttacctg
 540
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 600
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 660

ggctccaaac tagcaagtgc gtctgaaaaa ggcacagtca tccgggtggt ctctgtccct
720
gatgggcaaa agctctatga gttccggaga gggatgaaaa ggtatgtgac aatcagctct
780
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840
atcttcaagc tggaacaggt caccaacagt cgaccagaag agccttcgac ctggagtggc
900
tacatgggaa agatgtttat ggctgctacc aactacctcc ctaccaggt gtcagacatg
960
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1020
tgtacctct caacgatcca gaagttgcc aaggctgctag ttgcgtcatc cagtggacac
1080
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<210> 4638

<211> 446

<212> PRT

<213> Homo sapiens

<400> 4638

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Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
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Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
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Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
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Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
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Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
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Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
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Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
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Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
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Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
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Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
          245         250         255
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Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
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Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
          325         330         335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
          340         345         350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
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Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
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Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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Glu Asp Gly Gly Ala Leu Arg Gly Glu Val Ile Pro Glu His Glu Phe						
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 <212> DNA
 <213> Homo sapiens

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<211> 1873
<212> DNA
<213> Homo sapiens
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 <213> Homo sapiens

<400> 4642
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 35 40 45
 Val Ala Cys Glu Leu Gly Arg Leu Tyr Asn Lys Asp Ala Val Ile Glu
 50 55 60
 Phe Leu Leu Asp Lys Ser Ala Glu Lys Ala Leu Gly Lys Ala Ala Ser
 65 70 75 80
 His Ile Lys Ser Ile Lys Asn Val Thr Glu Leu Lys Leu Ser Asp Asn
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 Pro Ala Trp Glu Gly Asp Lys Gly Asn Thr Lys Gly Asp Lys His Asp
 100 105 110
 Asp Leu Gln Arg Ala Arg Phe Ile Cys Pro Val Val Gly Leu Glu Met
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<210> 4644
 <211> 270
 <212> PRT
 <213> Homo sapiens

<400> 4644
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 35 40 45
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 50 55 60
 Gln Glu Asp Asp Met Lys Thr Leu Val Ser Glu Thr Ile Arg Arg Phe
 65 70 75 80
 Gly Arg Leu Asp Cys Val Val Asn Asn Ala Gly His His Pro Pro Pro
 85 90 95
 Gln Arg Pro Glu Thr Ser Ala Gln Gly Phe Arg Gln Leu Leu Glu
 100 105 110
 Leu Asn Leu Leu Gly Thr Tyr Thr Leu Thr Lys Leu Ala Leu Pro Tyr
 115 120 125
 Leu Arg Lys Ser Gln Gly Asn Val Ile Asn Ile Ser Ser Leu Val Gly
 130 135 140
 Ala Ile Gly Gln Ala Gln Ala Val Pro Tyr Val Ala Thr Lys Gly Ala
 145 150 155 160
 Val Thr Ala Met Thr Lys Ala Leu Ala Leu Asp Glu Ser Pro Tyr Gly
 165 170 175
 Val Arg Val Asn Cys Ile Ser Pro Gly Asn Ile Trp Thr Pro Leu Trp
 180 185 190
 Glu Glu Leu Ala Ala Leu Met Pro Asp Pro Arg Ala Thr Ile Arg Glu
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 Gly Met Leu Ala Gln Pro Leu Gly Arg Met Gly Gln Pro Ala Glu Val
 210 215 220
 Gly Ala Ala Ala Val Phe Leu Ala Ser Glu Ala Asn Phe Cys Thr Gly
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<210> 4645
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 <212> DNA
 <213> Homo sapiens

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<211> 358

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<213> Homo sapiens

<400> 4646

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			20					25					30		
Pro	Arg	Ser	Ala	Ser	Ile	Lys	Asp	Ile	Lys	Lys	Ala	Tyr	Arg	Lys	Leu
		35					40					45			
Ala	Leu	Gln	Leu	His	Pro	Asp	Arg	Asn	Pro	Asp	Asp	Pro	Gln	Ala	Gln
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Glu	Lys	Phe	Gln	Asp	Leu	Gly	Ala	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Ser
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Glu	Lys	Arg	Lys	Gln	Tyr	Asp	Thr	Tyr	Gly	Glu	Glu	Gly	Leu	Lys	Asp
			85						90				95		
Gly	His	Gln	Ser	Ser	His	Gly	Asp	Ile	Phe	Ser	His	Phe	Phe	Gly	Asp
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Phe	Gly	Phe	Met	Phe	Gly	Gly	Thr	Pro	Arg	Gln	Gln	Asp	Arg	Asn	Ile
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Pro	Arg	Gly	Ser	Asp	Ile	Ile	Val	Asp	Leu	Glu	Val	Thr	Leu	Glu	Glu
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Val	Tyr	Ala	Gly	Asn	Phe	Val	Glu	Val	Val	Arg	Asn	Lys	Pro	Val	Ala
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Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg	Phe	Gln	Met	Thr	Gln	Glu	Val	Val
		180						185					190		
Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys	Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu
	195					200					205				
Glu	Val	Glu	Ile	Glu	Pro	Gly	Val	Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe
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		260						265					270		
Phe	Glu	Met	Asp	Ile	Thr	His	Leu	Asp	Gly	His	Lys	Val	His	Ile	Ser
	275					280						285			
Arg	Asp	Lys	Ile	Thr	Arg	Pro	Gly	Ala	Lys	Leu	Trp	Lys	Lys	Gly	Glu

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 Thr Phe Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg
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 <212> DNA
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<210> 4648
 <211> 188
 <212> PRT
 <213> Homo sapiens

<400> 4648
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      50      55      60
Arg Thr Ile Leu Met Arg Lys Glu Gly Glu Ser Ala Lys Ser Ile Asn
      65      70      75      80
Glu Met Leu Leu Ser Arg Leu Ser Arg Tyr Arg Ala Ser Pro Ser Ala
      85      90      95
Thr Leu Ala Ala Leu Thr Gly Ser Thr Ile Ser Asn Thr Leu Lys Glu
      100      105      110
Asp Gln Ala Ala Asn Thr Ser Cys Gly Leu Pro Leu Lys Met Leu Arg
      115      120      125
Lys Thr Pro Ile Tyr Thr Cys Gly Thr Tyr Leu Val Met Leu Val Pro
      130      135      140
Pro Pro Gly Gly Ser Gly Ser Ser Ala Thr Arg Ser Leu Phe Gly Gly
      145      150      155      160
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<210> 4649

<211> 3276

<212> DNA

<213> Homo sapiens

<400> 4649

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780

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2400

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
	50				55					60					
Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
65					70					75				80	
Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
			85						90					95	
Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
			100					105					110		
Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
			115				120					125			
Ala	Ser	Met	Thr	Glu	Thr	Gln	Ile	Asp	Glu	Thr	Arg	Met	Gly	Tyr	Lys

130 135 140
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 145 150 155 160
 Ala Asn Ile Glu Pro Met Tyr Gln Tyr Ser Leu Thr Trp Phe Ile Asn
 165 170 175
 Leu Tyr Met His Ser Leu Thr His Ser Thr Lys Ser Glu Glu Leu Asn
 180 185 190
 Leu Arg Ile Lys Tyr Ile Ile Asp His Phe Thr Leu Ser Ile Tyr Asn
 195 200 205
 Asn Val Cys Arg Ser Leu Phe Glu Lys Asp Lys Leu Leu Phe Ser Leu
 210 215 220
 Leu Leu Thr Ile Gly Ile Met Lys Gln Lys Lys Glu Ile Thr Glu Glu
 225 230 235 240
 Val Trp Tyr Phe Leu Leu Thr Gly Gly Ile Ala Leu Asp Asn Pro Tyr
 245 250 255
 Pro Asn Pro Ala Pro Gln Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile
 260 265 270
 Val Arg Ala Ser Ala Leu Pro Lys Leu His Gly Leu Met Glu His Leu
 275 280 285
 Glu Gln Asn Leu Gly Glu Trp Lys Leu Ile Tyr Asp Ser Ala Trp Pro
 290 295 300
 His Glu Glu Gln Leu Pro Gly Ser Trp Lys Phe Ser Gln Gly Leu Glu
 305 310 315 320
 Lys Met Val Ile Leu Arg Cys Leu Arg Pro Asp Lys Met Val Pro Ala
 325 330 335
 Val Arg Glu Phe Ile Ala Glu His Met Gly Lys Leu Tyr Ile Glu Ala
 340 345 350
 Pro Thr Phe Asp Leu Gln Gly Ser Tyr Asn Asp Ser Ser Cys Cys Ala
 355 360 365
 Pro Leu Ile Phe Val Leu Ser Pro Ser Ala Asp Pro Met Ala Gly Leu
 370 375 380
 Leu Lys Phe Ala Asp Asp Leu Gly Met Gly Gly Thr Arg Thr Gln Thr
 385 390 395 400
 Ile Ser Leu Gly Gln Gly Gln Gly Pro Ile Ala Ala Lys Met Ile Asn
 405 410 415
 Asn Ala Ile Lys Asp Gly Thr Trp Val Val Leu Gln Asn Cys His Leu
 420 425 430
 Ala Ala Ser Trp Met Pro Thr Leu Glu Lys Ile Cys Glu Glu Val Ile
 435 440 445
 Val Pro Glu Ser Thr Asn Ala Arg Phe Arg Leu Trp Leu Thr Ser Tyr
 450 455 460
 Pro Ser Glu Lys Phe Pro Val Ser Ile Leu Gln Asn Gly Ile Lys Met
 465 470 475 480
 Thr Asn Glu Pro Pro Lys Gly Leu Arg Ala Asn Leu Leu Arg Ser Tyr
 485 490 495
 Leu Asn Asp Pro Ile Ser Asp Pro Val Phe Phe Gln Ser Cys Ala Lys
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 Ala Val Met Trp Gln Lys Met Leu Phe Gly Leu Cys Phe Phe His Ala
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 Tyr Glu Phe Asn Glu Ser Asp Leu Arg Ile Ser Met Trp Gln Ile Gln
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 Met Phe Leu Asn Asp Tyr Lys Glu Val Pro Phe Asp Ala Leu Thr Tyr

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 Glu Glu Asp Tyr Tyr Ser Leu Ala Pro Gly Asp Thr Tyr Tyr Ile Pro
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 Pro His Gly Ser Tyr Gln Ser Tyr Ile Asp Tyr Leu Arg Asn Leu Pro
 625 630 635 640
 Ile Thr Ala His Pro Glu Val Phe Gly Leu His Glu Asn Ala Asp Ile
 645 650 655
 Thr Lys Asp Asn Gln Glu Thr Asn Gln Leu Phe Glu Gly Val Leu Leu
 660 665 670
 Thr Leu Pro Arg Gln Ser Gly Gly Ser Gly Lys Ser Pro Gln Glu Val
 675 680 685
 Val Glu Glu Leu Ala Gln Asp Ile Leu Ser Lys Leu Pro Arg Asp Phe
 690 695 700
 Asp Leu Glu Glu Val Met Lys Leu Tyr Pro Val Val Tyr Glu Glu Ser
 705 710 715 720
 Met Asn Thr Val Leu Arg Gln Glu Leu Ile Arg Phe Asn Arg Leu Thr
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 Lys Val Val Arg Arg Ser Leu Ile Asn Leu Gly Arg Ala Ile Lys Gly
 740 745 750
 Gln Val Leu Met Ser Ser Glu Leu Glu Glu Val Phe Asn Ser Met Leu
 755 760 765
 Val Gly Lys Val Pro Ala Met Trp Ala Ala Lys Ser Tyr Pro Ser Leu
 770 775 780
 Lys Pro Leu Gly Gly Tyr Val Ala Asp Leu Leu Ala Arg Leu Thr Phe
 785 790 795 800
 Phe Gln Glu Trp Ile Asp Lys Gly Pro Pro Val Val Phe Trp Ile Ser
 805 810 815
 Gly Phe Tyr Phe Thr Gln Ser Phe Leu Thr Gly Val Ser Gln Asn Tyr
 820 825 830
 Ala Arg Lys Tyr Thr Ile Pro Ile Asp His Ile Gly Phe Glu Phe Glu
 835 840 845
 Val Thr Pro Gln Glu Thr Val Met Glu Asn Asn Pro Glu Asp Gly Ala
 850 855 860
 Tyr Ile Lys Gly Leu Phe Leu Glu Gly Ala Arg Trp Asp Arg Lys Thr
 865 870 875 880
 Met Gln Ile Gly Glu Ser Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro
 885 890 895
 Ile Ile Trp Leu Lys Pro Gly Glu Ser Ala Met Phe Leu His Gln Asp
 900 905 910
 Ile Tyr Val Cys Pro Val Tyr Lys Thr Ser Ala Arg Arg Gly Thr Leu
 915 920 925
 Ser Thr Thr Gly His Ser Thr Asn Tyr Val Leu Ser Ile Glu Leu Pro
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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180
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240
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420
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480
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540
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600
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660
atggggaaga atattggtgc tcaaagtaat gatgattccg agtatgtccg tgcagtttat
720
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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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20      25      30
Gly Ala Ala Ser Ala Val Ser Leu Ala Gly Ala Ser Leu Val Leu Ser
35      40      45
Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg
50      55      60
Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
65      70      75      80
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Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

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<210> 4653
<211> 1276
<212> DNA
<213> Homo sapiens
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180
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240
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480
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540
gagcgggcca gccgccgggc ccgagggtcg ccttttgttc ggagtggcac gattgtccgt
600
tcccagacat tctcgcttgg agcacgaagc cagtatgttt gcagacttta tcgtagtga
660

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 780
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<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35					40					45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
		50				55					60				
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65					70					75				80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
			85					90					95		
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100					105					110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115						120				125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
		130				135					140				
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145					150					155				160	
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165					170					175		
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180					185						190		
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

	195						200						205						
Leu	Lys	Lys	Ala	Ser	Lys	Glu	Ile	Tyr	Gln	Leu	Arg	Gly	Gln	Ser	His				
	210						215						220						
Lys	Glu	Pro	Ile	Gln	Val	Gln	Thr	Phe	Arg	Glu	Lys	Ile	Ala	Phe	Phe				
225						230					235				240				
Thr	Arg	Pro	Arg	Ile	Asn	Ile	Pro	Pro	Leu	Pro	Ala	Asp	Asp	Val					
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<210> 4655

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4655

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<210> 4656

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4656

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Ala	Val	Gln	Arg	His	Glu	Gln	Gln	Glu	Gln	Ala	Gly	His	Thr	His	Arg				
		20						25					30						
Gln	Gln	Gln	Arg	Gln	Arg	Leu	Ala	Arg	His	Gly	Val	Arg	Arg	Ala	Ala				
		35				40					45								
Pro	Arg	Arg	Leu	Val	Val	Leu	Glu	Asp	Glu	Val	Glu	Leu	Asp	Leu	Gln				
	50					55			60										
His	Glu	Asp	Val	Lys	Glu	Pro	Gln	Asp	His	Gly	Val	Ala	Ala	Leu	Gly				
65				70				75				80							
Arg	Ala	His	Leu	Gly	Ala	His	Pro	His	Gly	His	Val	Ala	Gln	His	Gln				
		85				90					95								
Gln	Glu	Ala	His	Val	Ala	His	Gln	His	Asp	Asp	Ala	His	Ala	Asp	Leu				
	100					105					110								
Ala	Arg	Ala	Leu	Val	Leu	Leu	His	Gln	Val	Arg	Val	His	Asp	Gly	His				
	115					120					125								
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 Gly Arg Gln His His Gly Arg Pro
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<210> 4657
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 4657
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 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4658
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 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
 65 70 75 80
 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

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Val Asp Cys Ser Asp Cys Trp Leu Pro Val Val Lys Phe Ile Glu Glu
      100              105              110
Gln Phe Glu Gln Tyr Leu Arg Asp Glu Ser Gly Leu Asn Arg Lys Asn
      115              120              125
Ile Gln Asp Ser Arg Val His Cys Cys Leu Tyr Phe Ile Ser Pro Phe
      130              135              140
Gly Arg Ala Pro Ala Pro Arg Cys Gly Phe Leu Arg Ala Ile His Glu
      145              150              155              160
Lys Val Asn Ile Ile Pro Val Ile Gly Lys Ala Asp Ala Leu Met Pro
      165              170              175
Gln Glu Thr Gln Ala Leu Lys Gln Lys Ile Arg Asp Gln Leu Lys Glu
      180              185              190
Glu Glu Ile His Ile Tyr Gln Phe Pro Glu Cys Asp Ser Asp Glu Asp
      195              200              205
Glu Asp Phe Lys Arg Gln Asp Ala Glu Met Lys Glu Ser Ile Pro Phe
      210              215              220
Ala Val Val Gly Ser Cys Glu Val Val
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<210> 4659

<211> 864

<212> DNA

<213> Homo sapiens

<400> 4659

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120
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180
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240
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540
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600
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660
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720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
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<210> 4660
<211> 192
<212> PRT
<213> Homo sapiens

<400> 4660
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20 25 30
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35 40 45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
50 55 60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65 70 75 80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
85 90 95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
100 105 110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
115 120 125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130 135 140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145 150 155 160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
165 170 175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
180 185 190

<210> 4661
<211> 153
<212> DNA
<213> Homo sapiens

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<210> 4662
<211> 51
<212> PRT
<213> Homo sapiens

<400> 4662
Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu

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Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly			
	20	25	30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His			
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Gly Gln Phe			
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<210> 4663

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 4663

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240
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<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

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		20						25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
		35					40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50				55					60					
Pro	Gly	Arg	Ala	Gly	Leu	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu
65				70					75					80	
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
			85					90						95	
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
		100						105					110		
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115					120					125			
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130				135						140				
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145				150					155					160	
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
		165						170						175	
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
		180					185						190		
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195				200						205			
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210				215						220				
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225				230					235					240	
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
		245						250						255	
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
	260						265						270		
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

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<210> 4665
<211> 1043
<212> DNA
<213> Homo sapiens
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<210> 4666

<211> 167
 <212> PRT
 <213> Homo sapiens

<400> 4666
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 20 25 30
 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
 35 40 45
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
 50 55 60
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
 65 70 75 80
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
 85 90 95
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
 100 105 110
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
 115 120 125
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
 130 135 140
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
 145 150 155 160
 Leu Lys Ile Thr Trp Ser Tyr
 165

<210> 4667
 <211> 1031
 <212> DNA
 <213> Homo sapiens

<400> 4667
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 cctctgctgg aggggaaagc ccgtccctgt tttgctatga ccgagcccca ggttgccctct
 180
 tcagatgccca ccaacattga ggcttccatc agagaggagg acagcttcta tgtcataaac
 240
 ggtcacaaat ggtggatcac aggcacctcg gatcctcggt gccaaactcg tgtgtttatg
 300
 ggaaaaacag acccacatgc accaagacac cggcagcagt ctgtgctctt ggttcccatg
 360
 gataccccag ggataaaaaat catccggcct ctgacgggtg atggactgga agatgcacca
 420
 ggtggccatg gtgaagtccg atttgagcac gtgcgtgtgc ccaaagagaa catggtcctg
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 ggccctggcc gaggttttga gatcgcccag ggcagactgg gccccggcag gatccatcac
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 780
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 840
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 1020
 aaaaaaaaaa a
 1031

<210> 4668
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 4668
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 20 25 30
 Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu Leu Glu Gly Lys Ala Arg
 35 40 45
 Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Thr
 50 55 60
 Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe Tyr Val Ile Asn
 65 70 75 80
 Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro Arg Cys Gln Leu
 85 90 95
 Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro Arg His Arg Gln
 100 105 110
 Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly Ile Lys Ile Ile
 115 120 125
 Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro Gly Gly His Gly
 130 135 140
 Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu Asn Met Val Leu
 145 150 155 160
 Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly
 165 170 175
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 180 185 190
 Ala Leu Met Lys Ala Arg Val Ser Ala Phe Pro Arg Thr Gln His
 195 200 205

<210> 4669
 <211> 683
 <212> DNA
 <213> Homo sapiens

<400> 4669
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 180
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 240
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 300
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 gcaattgtgg ttatacagaa ttattatagg ttgtatgta gagtaaaaac agaaagaaaa
 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcataaaa
 540
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<210> 4670
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4670
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 20 25 30
 Thr Cys Val Gln Ala Gly Phe Gln Asp Met Asn Ile Lys Lys Gln Ile
 35 40 45
 Gln Glu Gln His Gln Ala Ala Ile Ile Gln Lys His Cys Lys Ala
 50 55 60
 Phe Lys Ile Arg Lys His Tyr Leu His Ile Arg Ala Thr Val Val Ser
 65 70 75 80
 Ile Gln Arg Arg Tyr Arg Lys Leu Thr Ala Val Arg Thr Gln Ala Val
 85 90 95
 Ile Cys Ile Gln Ser Tyr Tyr Arg Gly Phe Lys Val Arg Lys Asp Ile
 100 105 110
 Gln Asn Met His Arg Ala Ala Thr Leu Ile Gln Ser Phe Tyr Arg Met
 115 120 125
 His Arg Ala Lys Val Asp Tyr
 130 135

<210> 4671
 <211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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 180
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 240
 gtgcgcccga taaagatggc aaccgccgat gagattgtga aactcatgct cgaccacatg
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 480
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 540
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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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			20					25					30		
Lys	Leu	Met	Leu	Asp	His	Met	Thr	Asn	Thr	Thr	Asn	Ala	Ser	His	Val
		35					40					45			
Pro	Val	Gln	Pro	Gly	Ser	Ser	Val	Val	Met	Met	Val	Asn	Asn	Leu	Gly
	50				55						60				
Gly	Leu	Ser	Phe	Leu	Glu	Leu	Gly	Ile	Ile	Ala	Asp	Ala	Thr	Val	Arg
65					70					75				80	
Ser	Leu	Glu	Gly	Arg	Gly	Val	Lys	Ile	Ala	Arg	Ala	Leu	Val	Gly	Thr
			85					90						95	
Phe	Met	Ser	Ala	Leu	Glu	Met	Pro	Gly	Ile	Ser	Leu	Thr	Leu	Leu	Leu
			100					105					110		
Val	Asp	Glu	Pro	Leu	Leu	Lys	Leu	Ile	Asp	Ala	Glu	Thr	Thr	Ala	Ala
	115						120					125			
Ala	Trp	Pro	Arg	Ser	Gly	Trp	Arg	Trp	Cys	Trp	Asn	Gly	Cys	Ala	Ala
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Leu	Ser	Trp	Ala	Trp	Arg	Asn	Thr								
145						150									

<210> 4673
<211> 1335
<212> DNA
<213> Homo sapiens

<400> 4673
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360
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420
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660
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780
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<210> 4674

<211> 402
 <212> PRT
 <213> Homo sapiens

<400> 4674

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Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
 35           40           45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
 50           55           60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
 65           70           75           80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
 85           90           95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
 100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
 115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
 130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
 145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
 165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
 180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
 195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
 210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
 225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
 245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
 260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
 275          280          285
Ser Ser Lys Leu Tyr Arg Phe Lys Tyr Ile Glu Asn Arg Asp Val
 290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
 305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
 325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
 340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
 355          360          365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
 370          375          380
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385
Glu Leu

390

395

400

<210> 4675
<211> 2868
<212> DNA
<213> Homo sapiens

<400> 4675
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240
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300
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360
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720
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<212> DNA

<213> Homo sapiens

<400> 4677

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Lys Gly Tyr Ser Lys Thr Asn Thr Thr Ser Ser Arg Pro Ala Ser Ser
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Arg Gly Ser Leu Ser Ser Ser Ser Ser Ser Ser Ser Leu Thr Lys
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 3240
 ggtacc
 3246

<210> 4684
 <211> 385
 <212> PRT
 <213> Homo sapiens

<400> 4684
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 Pro His Ala Arg Ser Arg Val Arg Pro Ala Pro Lys Thr Ile Pro Gln
 35 40 45
 Gln Thr His Gly Thr Ala Arg Ile Gly Thr His Asn Gly Thr Phe His
 50 55 60
 Cys Asp Glu Ala Leu Ala Cys Ala Leu Leu Arg Leu Leu Pro Glu Tyr
 65 70 75 80
 Arg Asp Ala Glu Ile Val Arg Thr Arg Asp Pro Glu Lys Leu Ala Ser
 85 90 95
 Cys Asp Ile Val Val Asp Val Gly Gly Glu Tyr Asp Pro Arg Arg His
 100 105 110
 Arg Tyr Asp His His Gln Arg Ser Phe Thr Glu Thr Met Ser Ser Leu
 115 120 125
 Ser Pro Gly Lys Pro Trp Gln Thr Lys Leu Ser Ser Ala Gly Leu Ile
 130 135 140
 Tyr Leu His Phe Gly His Lys Leu Leu Ala Gln Leu Leu Gly Thr Ser
 145 150 155 160
 Glu Glu Asp Ser Met Val Gly Thr Leu Tyr Asp Lys Met Tyr Glu Asn
 165 170 175
 Phe Val Glu Glu Val Asp Ala Val Asp Asn Gly Ile Ser Gln Trp Ala
 180 185 190
 Glu Gly Glu Pro Arg Tyr Ala Leu Thr Thr Thr Leu Ser Ala Arg Val
 195 200 205
 Ala Arg Leu Asn Pro Thr Trp Asn His Pro Asp Gln Asp Thr Glu Ala
 210 215 220
 Gly Phe Lys Arg Ala Met Asp Leu Val Gln Glu Glu Phe Leu Gln Arg
 225 230 235 240
 Leu Asp Phe Tyr Gln His Ser Trp Leu Pro Ala Arg Ala Leu Val Glu
 245 250 255
 Glu Ala Leu Ala Gln Arg Phe Gln Val Asp Pro Ser Gly Glu Ile Val
 260 265 270
 Glu Leu Ala Lys Gly Ala Cys Pro Trp Lys Glu His Leu Tyr His Leu
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<400> 4686

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Asp	Ala	Arg	Gly	Arg	Ala	Gly	His	Arg	Ser	Ala	Ala	Ala	Ser	Asn	Leu
			20					25					30		
Ser	Gly	Leu	Ser	Leu	Gln	Glu	Ala	Gln	Gln	Ile	Leu	Asn	Val	Ser	Lys
		35					40					45			
Leu	Ser	Pro	Glu	Glu	Val	Gln	Lys	Asn	Tyr	Glu	His	Leu	Phe	Lys	Val

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      50              55              60
Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
65              70              75              80
Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln Ala Gln Glu
      85              90              95
Asp Arg Glu Lys Gly Gln Met Pro His Thr
      100              105

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<210> 4687
 <211> 309
 <212> DNA
 <213> Homo sapiens

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309

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<210> 4688
 <211> 90
 <212> PRT
 <213> Homo sapiens

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<400> 4688
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1              5              10              15
Ala Leu Pro Val Ser Tyr Ala Leu Asn His Val Ser Ala Leu Ser His
      20              25              30
Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
      35              40              45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
      50              55              60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65              70              75              80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
      85              90

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<210> 4689
 <211> 898
 <212> DNA
 <213> Homo sapiens

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<400> 4689
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 240
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 300
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 420
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 480
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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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 20 25 30
 Ser Ala Pro Glu Asp Leu Met Phe Leu Leu Asp Ser Ser Ala Ser Val
 35 40 45
 Ser His Tyr Glu Phe Ser Arg Val Arg Glu Phe Val Gly Gln Leu Val
 50 55 60
 Ala Pro Leu Pro Leu Ala Pro Xaa Ala Leu Arg Ala Ser Leu Val His
 65 70 75 80
 Val Gly Ser Arg Pro Tyr Thr Glu Phe Pro Phe Gly Gln His Ser Ser
 85 90 95
 Gly Glu Ala Ala Gln Asp Ala Val Arg Ala Ser Ala Gln Arg Met Gly
 100 105 110
 Asp Thr His Thr Gly Leu Ala Leu Val Tyr Ala Lys Glu Gln Leu Phe
 115 120 125
 Ala Glu Ala Ser Gly Ala Arg Pro Gly Val Pro Lys Val Leu Val Trp
 130 135 140
 Val Thr Asp Gly Gly Ser Ser Asp Pro Val Gly Pro Pro Met Gln Glu

145 150 155 160
 Leu Lys Asp Leu Gly Val Thr Val Phe Ile Val Ser Thr Gly Arg Gly
 165 170 175
 Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His
 180 185 190
 Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu
 195 200 205
 Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
 210 215 220
 Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
 225 230 235 240
 Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
 245 250 255
 Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
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 Trp Ala Gly Leu Asp Pro Asp Thr Asp Tyr Asp Val Ala Leu Val Pro
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 Glu Ser Asn Val Arg Leu Leu Arg Pro Gln Ile
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<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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 840

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1140
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<210> 4692

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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      20           25           30
Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
      35           40           45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
      50           55           60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
      65           70           75           80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
      85           90           95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
      100          105          110
Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
      115          120          125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
      130          135          140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
      145          150          155          160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
      165          170          175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
      180          185          190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
      195          200          205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
      210          215          220
Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
      225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
      245          250          255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
      260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
      275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
      290          295          300
Ser Ser Cys Tyr Gly Asp Cys Arg Ser Glu Asp Asp Glu Ala Thr Glu
      305          310          315          320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
      325          330          335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
      340          345          350
His Arg Tyr Gln Ala Asn Leu Glu Ile Thr Gly Pro Lys Val Ala Ser
      355          360          365
Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
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<210> 4693
 <211> 794
 <212> DNA
 <213> Homo sapiens

<400> 4693
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 360
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<210> 4694
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4694
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 20 25 30
 Asn Ser Gly Val Gly Gln Asp Gly Ser Leu Leu Ser Ser Pro Phe Leu
 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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 Ala Tyr Ala Val Pro Asn Val Glu Lys Thr Leu Arg Asp Tyr Leu Gln
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 Leu Leu Arg Lys Gly Pro Asp

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<210> 4695
<211> 2209
<212> DNA
<213> Homo sapiens

<400> 4695
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3883

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<210> 4696
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4696
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 35 40 45
 Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala Ala Trp Pro Asn
 50 55 60
 Val Ala Ala Val Ser Ile Thr Gly Arg Lys Arg Ser Arg Val Ala Pro
 65 70 75 80
 Ala Glu Pro Gln Glu Ala Pro Asp Ser Thr Ala Ala Xaa Glu Ala Gln
 85 90 95
 Pro Arg Ser Xaa Met Ala Leu Val Leu Glu Arg Val Cys Ser Thr Leu
 100 105 110
 Leu Gly Leu Glu Glu His Leu Asn Ala Leu Asp Arg Ala Ala Gly Asp
 115 120 125
 Gly Asp Cys Gly Thr Thr His Ser Arg Ala Ala Arg Ala Ile Gln Glu
 130 135 140
 Trp Leu Lys Glu Gly Pro Pro Pro Ala Ser Pro Ala Gln Leu Leu Ser

145 150 155 160
 Lys Leu Ser Val Leu Leu Leu Glu Lys Met Gly Gly Ser Ser Gly Ala
 165 170 175
 Leu Tyr Gly Leu Phe Leu Thr Ala Ala Ala Gln Pro Leu Lys Ala Lys
 180 185 190
 Thr Ser Leu Pro Ala Trp Ser Ala Ala Met Asp Ala Gly Leu Glu Ala
 195 200 205
 Met Gln Lys Tyr Gly Lys Ala Ala Pro Gly Asp Arg Thr Met Leu Asp
 210 215 220
 Ser Leu Trp Ala Ala Glu Gln Glu Leu Gln Ala Trp Lys Ser Pro Gly
 225 230 235 240
 Ala Asp Leu Leu Gln Val Leu Thr Lys Ala Val Lys Ser Ala Glu Ala
 245 250 255
 Ala Ala Glu Ala Thr Lys Asn Met Glu Ala Gly Ala Gly Arg Ala Ser
 260 265 270
 Tyr Ile Ser Ser Ala Arg Leu Glu Gln Pro Asp Pro Gly Ala Val Ala
 275 280 285
 Ala Ala Ala Ile Leu Arg Ala Ile Leu Glu Val Leu Gln Ser
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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 840

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 900
 ctttcattat tacaacctta atggatcttc cttttctttt taaagaatgt ctgactgcta
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 1020
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 1047

<210> 4698
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4698
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 20 25 30
 Asp Ala Asp Ile Pro Leu Glu Leu Val Phe His Leu Pro Val Asn Tyr
 35 40 45
 Pro Ser Cys Leu Pro Gly Ile Ser Ile Asn Ser Glu Gln Leu Thr Arg
 50 55 60
 Ala Gln Cys Val Thr Val Lys Glu Lys Leu Leu Glu Gln Ala Glu Ser
 65 70 75 80
 Leu Leu Ser Glu Pro Met Val His Glu Leu Val Leu Trp Ile Gln Gln
 85 90 95
 Asn Leu Arg His Ile Leu Ser Gln Pro Glu Thr Gly Ser Gly Ser Glu
 100 105 110
 Lys Cys Thr Phe Ser Thr Ser Thr Thr Met Asp Asp Gly Leu Trp Ile
 115 120 125
 Thr Leu Leu His Leu Asp His Met Arg Ala Lys Thr Lys Tyr Val Lys
 130 135 140
 Ile Val Glu Lys Trp Ala Ser Asp Leu Arg Leu Thr Gly Arg Leu Met
 145 150 155 160
 Phe Met Gly Lys Ile Ile Leu Ile Leu Leu Gln Gly Asp Arg Asn Asn
 165 170 175
 Leu Lys Val Pro Lys Ser
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<210> 4699
 <211> 1441
 <212> DNA
 <213> Homo sapiens

<400> 4699
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 ataacatagt tcaccacaat gggacccccccc cccctttttt ctcaccctac agttagtaat
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attacaatta aaataactat attcttctat attttttctg ttaaaatcat ctcataaatt
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 420
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 480
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 720
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 1441

<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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Ser	Thr	Arg	Gly	Gln	Ser	Lys	Thr	Gly	Trp	Lys	Leu	Pro	Val	Thr	Leu
				20				25					30		
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser

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      35              40              45
Glu Thr Ala Ala Ala Pro Tyr Arg Ala Cys Trp Leu Cys Arg Gly Glu
  50              55              60
Val Asp Asp Lys Gly Thr Arg His Ala Ser Ala Pro Cys Val Arg Ser
  65              70              75              80
Gly Leu Gly His Ser Pro Cys Thr Ser Lys Thr Pro Val Leu Thr Pro
      85              90              95
Thr Ser Lys Glu Leu Leu Leu Leu Ile Cys Lys Ala Ile Leu Leu Leu
      100              105              110
Ser Asn Leu Val
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<210> 4701
 <211> 812
 <212> DNA
 <213> Homo sapiens

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<400> 4701
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  120
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  180
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  240
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  300
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  420
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  480
tgctgectct cagccacctg ccagccctgt tttatgaata tgtttaccgt ggctgtcact
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  660
atgtctgcat tctcccgctc ggccttggcg cgcgcccggg cctcgggtct cactcgcagc
  720
atctcattct tgtgcgcag ctccatctcc cgctccacgg tggctcgccg catggcttcc
  780
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  812

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<210> 4702
 <211> 69
 <212> PRT
 <213> Homo sapiens

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<400> 4702
Arg Gln Gly Phe Thr Leu Thr Arg Met Ile Ser Ile Ser Gly Pro Arg

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      1           5           10           15
Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
      20           25           30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35           40           45
Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
      50           55           60
Pro Pro Gly Leu Lys
65

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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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120
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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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Met Ala Ala Pro Glu Gln Pro Leu Ala Ile Ser Arg Gly Cys Thr Ser
      1           5           10           15
Ser Ser Ser Leu Ser Pro Pro Arg Ala Asp Arg Thr Leu Leu Val Arg
      20           25           30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35           40           45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50           55           60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65           70           75           80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85           90           95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

<210> 4705
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 4705
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 120
 gaaggatgga aaggaccag gagcgataac agtaaatcaa ataagatatt tgtcgggtgga
 180
 attcctcaca attgtggtga gacagagctc aggggaatact tcaagaagtt cggagtggtc
 240
 acggaggtag tcatgatcta tgacgccgag aagcagaggc cccgaggtaa gggcagatct
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 agtttgacct cggccttctc cctgctcctc cctcagatgg caaactatct caccgccag
 360
 gcacacacag gtggcggctg tagcaaacag cctcaggaag ggacgatttg gagacaaatg
 420
 actaaaacgt gggctcctca tgtgcacccc attcagcctg tctgtgcttc ccgaggtcag
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 569

<210> 4706
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 4706
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 1 5 10 15
 Lys Ser Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu
 20 25 30
 Thr Glu Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val
 35 40 45
 Val Met Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Lys Gly Arg
 50 55 60
 Ser Ser Leu Thr Ser Ala Phe Ser Leu Leu Leu Pro Gln Met Ala Asn
 65 70 75 80
 Tyr Leu Thr Arg Gln Ala His Thr Gly Gly Gly Cys Ser Lys Gln Pro
 85 90 95
 Gln Glu Gly Thr Ile Trp Arg Gln Met Thr Lys Thr Trp Ala Pro His
 100 105 110
 Val His Pro Ile Gln Pro Val Cys Ala Ser Arg Gly Gln Thr Ser His
 115 120 125
 Ile Val Phe Trp Leu Val Leu Leu Lys Phe Leu Arg Leu Val Met Ser
 130 135 140
 Leu Gly Leu Ala Ser Val Phe His Cys Pro

145

150

<210> 4707
 <211> 748
 <212> DNA
 <213> Homo sapiens

<400> 4707
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 180
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 240
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 aaaatggcag ctcccagca gccgcttgcg atatcaaggg gatgcacgag ctctctctcg
 420
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 600
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 748

<210> 4708
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4708
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 Ser Ser Ser Leu Ser Pro Pro Arg Gly Asp Arg Thr Leu Leu Val Arg
 20 25 30
 His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
 35 40 45
 Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
 50 55 60
 Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
 65 70 75 80
 Ala Leu Thr Arg Leu His Gln Leu Lys Leu Gly His Thr Leu Val
 85 90 95
 Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

100 105 110
 Ser Gly Ser Glu Lys Lys Lys Met Ser Asp Asp Pro Val Glu Asp Asp
 115 120 125

<210> 4709
 <211> 1351
 <212> DNA
 <213> Homo sapiens

<400> 4709
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 120
 ggccgagcag agatcgggaa gctcttcgtg ggcggtcttg actggagcac gacccaagag
 180
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 240
 aaaaccacca accagtctcg aggccttggg tttgtcaa ataaagaccc aaactgtgtg
 300
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 360
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 420
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 720
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<210> 4710

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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 20           25           30
Tyr Gly Glu Val Val Asp Cys Val Ile Met Lys Asp Lys Thr Thr Asn
 35           40           45
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val
 50           55           60
Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
 65           70           75           80
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg
 85           90           95
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
100          105          110
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu
115          120          125
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met
130          135          140
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr
145          150          155          160
Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His
165          170          175
Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp
180          185          190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
195          200          205
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro
210          215          220
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
225          230          235          240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro
245          250          255
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
260          265          270
Gly Phe Pro Pro Pro Gln Gly Phe Pro Gln Gly Tyr Gly Ala Pro Pro
275          280          285
Gln Phe Ser Phe Gly Tyr Gly Pro Pro Pro Pro Pro Pro Gly Ser Arg
290          295          300

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<210> 4711

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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720
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 2061

<210> 4712
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 4712
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 Val Gly Ser Gly Ser Arg Glu Leu Ser Leu Arg Pro Ser Arg Ser Gly
 35 40 45
 Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu Glu Glu Ala Gln
 50 55 60
 Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn
 65 70 75 80
 Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu
 85 90 95
 Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
 100 105 110
 Glu Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val Ser Ala Ala Leu
 115 120 125
 Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu Pro Ala Leu Asp
 130 135 140
 Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala
 145 150 155 160
 Phe Ile Glu Glu Leu Phe Ser Leu Met Val Val Asn Arg Leu Thr Glu
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 Glu Leu Gly Cys Asp Glu Ile Ile Asp Arg Glu
 180 185

<210> 4713
 <211> 1324
 <212> DNA
 <213> Homo sapiens

<400> 4713

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<212> PRT

<213> Homo sapiens

<400> 4714

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<211> 239

<212> PRT

<213> Homo sapiens

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 Arg Ser Leu Ser Lys Glu Thr Thr Arg Tyr Asn His Pro Lys Pro Asn
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 85 90 95
 Glu Lys Pro Asn Lys Asp Leu Glu Ser Cys Ser Asp Asp Asp Asn Gln
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 Arg Leu Lys Gly Gln Asp Pro Gly Ala Pro Gln Leu Gln Ser Glu Ser
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 Lys Pro Pro Lys Lys Lys Lys Lys Arg Arg Gln Lys Glu Glu
 180 185 190
 Glu Ala Thr Ala Ser Glu Arg Asn Asp Ala Asp Glu Lys His Pro Glu
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<210> 4717

<211> 2753

<212> DNA

<213> Homo sapiens

<400> 4717

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 <211> 259
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Glu Glu Glu Glu Asn Asp Asp Asp Asn Ser Leu Glu Gly Glu
 50 55 60
 Thr Phe Pro Leu Glu Arg Asp Glu Val Met Pro Pro Pro Leu Gln His
 65 70 75 80
 Pro Gln Thr Asp Arg Leu Thr Cys Pro Lys Gly Leu Pro Trp Ala Pro
 85 90 95
 Lys Val Arg Glu Lys Asp Ile Glu Met Phe Leu Glu Ser Ser Arg Ser
 100 105 110
 Lys Phe Ile Gly Tyr Thr Leu Gly Ser Asp Thr Asn Thr Val Val Gly
 115 120 125
 Leu Pro Arg Pro Ile His Glu Ser Ile Lys Thr Leu Lys Gln His Lys
 130 135 140
 Tyr Thr Ser Ile Ala Glu Val Gln Ala Gln Met Lys Glu Glu Tyr Leu
 145 150 155 160
 Arg Ser Pro Leu Ser Gly Gly Glu Glu Glu Val Glu Gln Val Pro Ala
 165 170 175
 Glu Thr Leu Tyr Gln Gly Leu Leu Pro Ser Leu Pro Gln Tyr Met Ile
 180 185 190
 Ala Leu Leu Lys Ile Leu Leu Ala Ala Ala Pro Thr Ser Lys Ala Lys
 195 200 205
 Thr Asp Ser Ile Asn Ile Leu Ala Asp Val Leu Pro Glu Glu Met Pro
 210 215 220
 Thr Thr Val Leu Gln Ser Met Lys Leu Gly Val Asp Val Asn Arg His
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Lys His Phe

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250

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<210> 4719
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<212> DNA
<213> Homo sapiens

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<210> 4720
<211> 196
<212> PRT
<213> Homo sapiens

<400> 4720
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35 40 45
Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
50 55 60
Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
65 70 75 80
Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg
85 90 95
Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
100 105 110
Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
115 120 125
Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

130	135	140
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145	150	155
Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr		160
	165	170
Ser Met Lys Ala Cys Asp Leu Gly His Ile Trp Ala Cys Ala Asn Ala		175
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Ser Arg Met Tyr		190
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<210> 4721
 <211> 1385
 <212> DNA
 <213> Homo sapiens

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<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu		50	55	60	
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Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr	85	90	95	
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu	100	105	110	
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln	115	120	125	
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp	130	135	140	
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Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met	195	200	205	
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Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro	245	250	255	
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp	260	265	270	
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<210> 4723
<211> 1213
<212> DNA
<213> Homo sapiens

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<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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360
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<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

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Xaa Phe Leu Glu Gly Glu Leu Gly Arg Ser Arg Arg Thr Pro Ala Gly
 1           5           10           15
Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
      20           25           30
His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
      35           40           45
His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
      50           55           60
Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
      65           70           75           80
Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
      85           90           95
Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
      100           105           110
Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
      115           120

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<210> 4727
<211> 2031
<212> DNA
<213> Homo sapiens

<400> 4727
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300
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420
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1380
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1440

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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Ala	Glu	Gly	Arg	Val	Ala	Leu	Ala	Arg	Ala	Ala	Asp	Cys	Glu	Val	Glu
			20					25					30		
Gln	Trp	Asp	Ser	Asp	Glu	Pro	Ile	Pro	Ala	Lys	Glu	Leu	Glu	Arg	Gly
		35				40						45			
Val	Ala	Gly	Ala	His	Gly	Leu	Leu	Cys	Leu	Leu	Ser	Asp	His	Val	Asp
	50				55				60						
Lys	Arg	Ile	Leu	Asp	Ala	Gly	Ala	Asn	Leu	Lys	Val	Ile	Ser	Thr	
65				70					75					80	
Met	Ser	Val	Gly	Ile	Asp	His	Leu	Ala	Leu	Asp	Glu	Ile	Lys	Lys	Arg
			85					90						95	
Gly	Ile	Arg	Val	Gly	Tyr	Thr	Pro	Asp	Val	Leu	Thr	Asp	Thr	Thr	Ala
			100				105						110		
Glu	Leu	Ala	Val	Ser	Leu	Leu	Leu	Thr	Thr	Cys	Arg	Arg	Leu	Pro	Glu
		115					120					125			
Ala	Ile	Glu	Glu	Val	Lys	Asn	Gly	Gly	Trp	Thr	Ser	Trp	Lys	Pro	Leu
	130					135					140				
Trp	Leu	Cys	Gly	Tyr	Gly	Leu	Thr	Gln	Ser	Thr	Val	Gly	Ile	Ile	Gly
145				150					155					160	
Leu	Gly	Arg	Ile	Gly	Gln	Ala	Ile	Ala	Arg	Arg	Leu	Lys	Pro	Phe	Gly
			165					170						175	
Val	Gln	Arg	Phe	Leu	Tyr	Thr	Gly	Arg	Gln	Pro	Arg	Pro	Glu	Glu	Ala
		180					185						190		
Ala	Glu	Phe	Gln	Ala	Glu	Phe	Val	Ser	Thr	Pro	Glu	Leu	Ala	Ala	Gln
		195					200					205			
Ser	Asp	Phe	Ile	Val	Val	Ala	Cys	Ser	Leu	Thr	Pro	Ala	Thr	Glu	Gly

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      210              215              220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe
225              230              235              240
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln
      245              250              255
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser
      260              265              270
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys
      275              280              285
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr
      290              295              300
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu
305              310              315              320
Pro Met Pro Ser Glu Leu Lys Leu
      325

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<210> 4729
<211> 753
<212> DNA
<213> Homo sapiens

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<400> 4729
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120
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180
gaaacccact gaagacgtct gcgtgagaat agagaccacc gaggccgact cgcgggccgc
240
tgcaaccacc gccaggaca aaaggagccc agcgctacta gctgcaccgc attcctccca
300
gtgcttagca tgaagaaggc cgaaatggga cgattcagta tttccccgga tgaagacagc
360
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480
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753

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<210> 4730
<211> 148
<212> PRT
<213> Homo sapiens

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<400> 4730

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Met Lys Lys Ala Glu Met Gly Arg Phe Ser Ile Ser Pro Asp Glu Asp
 1           5           10           15
Ser Ser Ser Tyr Ser Ser Asn Ser Asp Phe Asn Tyr Ser Tyr Pro Thr
      20           25           30
Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
      35           40           45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
      50           55           60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
65           70           75           80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
      85           90           95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
      100          105          110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
      115          120          125
Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
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Val Gly Lys Leu
145

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<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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180
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240
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420
tactttaaat ggtccttttg ctttgccact gagacctgc ttggccacag acgtcattcg
480
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540
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600
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660
gcaccttctt tccatcagag tctgctgccc ggggtgggctg ggaaggagg agatacaaa
720
aagaaagtag gcatgatcac tgggtcggtt cccaagccac cctcaccctc caagaaggca
780

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<210> 4732
<211> 129
<212> PRT
<213> Homo sapiens

<400> 4732
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20 25 30
Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
100 105 110
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg
115 120 125
Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

<400> 4733
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540
tgg
543

<210> 4734
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 4734
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 Val Glu Gly Leu Ser Gly Arg Arg Asp Pro Leu Gly Asp Pro Thr Met
 20 25 30
 Phe Phe Tyr Leu Ser Lys Lys Ile Ser Ile Pro Asn Asn Val Lys Leu
 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
 145 150 155 160
 Ile Cys Ile Val Tyr Glu Asp Gly Ala Val Ile Val Gly Ser Val Asp
 165 170 175
 Gly Asn Arg Ile Trp
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<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

<400> 4735
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 120
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 180
 cgtgtccag gcaaaagcct cagctttgca gcagcagcag tactaccagt ggtaccagca
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 300

<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 4736

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Met Val Ala Gly Ala Gly Arg Glu Asn Gly Met Glu Thr Pro Met His
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Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser Ile Ser
          20           25           30
Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
          35           40           45
Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
          50           55           60
Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
65           70           75           80
Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
          85           90

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<210> 4737

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 4737

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120
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240
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1020

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1560
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2220
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2602

<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738
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 His Gln Asp Val Ser Glu Arg Arg Leu Asp Thr Gln Arg Pro Gln Val
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 Thr Met Trp Glu Arg Asp Val Ser Ser Asp Arg Gln Glu Pro Gly Arg
 35 40 45
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50 55 60
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
 65 70 75 80
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
 85 90 95
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
 100 105 110
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
 115 120 125
 Val Val Arg Lys Asn Leu Glu Gly Arg Gln Arg Glu Leu Glu Glu
 130 135 140
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
 145 150 155 160
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
 165 170 175
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
 180 185 190
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
 195 200 205
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
 210 215 220
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
 225 230 235 240
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
 245 250 255
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
 260 265 270
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
 275 280 285
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
 290 295 300
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
 305 310 315 320
 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
 325 330 335
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
 340 345 350
 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
 355 360 365
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

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385      390      395      400
Glu Gln Leu Arg Leu Val Val Asn Ala Val Ser Ser Ser Gln Ile Trp
      405      410      415
Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420      425      430
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
      435      440      445
Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450      455      460
Ser Cys Pro Leu Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465      470      475      480
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
      485      490      495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500      505      510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515      520      525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
      530      535      540
Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
545      550      555      560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565      570      575
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
      580      585      590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595      600      605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610      615      620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625      630      635      640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645      650      655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660      665      670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
      675      680      685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690      695      700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705      710      715      720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
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Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
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Gln Met Ser Ser
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<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4739

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120
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180
gcagggttgag attcatagt aaatcgggtc aagaagtgat cagatgcaaa gcacagggca
240
gttcattact ataccatggc tgaggtcttc ctgggcacca ggcctgggc tcagcacttg
300
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480
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<210> 4740

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4740

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		20						25				30			
Trp	Leu	Ser	Asp	Lys	Asp	Lys	Glu	Lys	Ile	Gln	Met	Ser	Thr	Arg	Ala
		35				40					45				
Val	His	Ile	Leu	Trp	Val	Ser	Trp	Glu	Gln	Gly	Trp	Ala	Val	Pro	Glu
	50				55					60					
Ala	Pro	Ser	Gln	Pro	Ala	Pro	Gln	Ala	Ala	Asn	Gly	Ser	Leu	Leu	Leu
65			70						75				80		
Gly	Gln	Gly	Ile	Cys	Gly	Gln	Glu	Ser	Thr	Leu	Val	Arg	Arg	Arg	Leu
			85					90					95		
Ala	Ser	Asn	Thr	Gln	Pro	Cys	Leu	Arg	Ala	Pro	Ala	Val	Glu	Gly	Ser
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<210> 4741

<211> 411

<212> DNA

<213> Homo sapiens

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 120
 ttccgaaaaa aagaggggaa ttttttaaaa aacccgaaaag gggggaagg ggggggtata
 180
 aaagataaaa tttgggtttt tgggggggaa aatttggaaca cccaccctc ggggtttttt
 240
 tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa attttttctt taatttccaa
 300
 ataaaaaaa aatgggggttc caaaatcatt gaaaaatagg ggggactcca aaaccttgaa
 360
 ttttcccaag ggggaccact aaaatttacc ccttttttgg ggttttgggg g
 411

<210> 4742
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 4742
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 Phe Phe Leu Gly Pro Pro Phe Lys Ile Phe Trp Gly Gly Glu Lys Lys
 20 25 30
 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu
 35 40 45
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe
 50 55 60
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg
 65 70 75 80
 Lys Thr Pro Phe Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys
 85 90 95
 Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn
 100 105

<210> 4743
 <211> 473
 <212> DNA
 <213> Homo sapiens

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 120
 gagtgattga gtcccgggtat ctgcagtatg aaaagaagac aacccaaaag gtcctgcag
 180
 gagatgggtc acagaccga gggaagatgt ctgaaggtgg aaggaaatcc agcctgctcc
 240
 agaaaagcaa agcagatagc agtgggggtcg gaaaggtga cctgcagtcc acgttgctgg
 300

aagggcatgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg
 360
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatttt
 420
 ctgcccctcg gaaaaagagc ccggatttat ctgaagcgaa tggaatgatg gag
 473

<210> 4744
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 4744
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 Arg Val Ile Glu Ser Arg Tyr Leu Gln Tyr Glu Lys Lys Thr Thr Gln
 35 40 45
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu
 50 55 60
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser
 65 70 75 80
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly
 85 90 95
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile
 100 105 110
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu
 115 120 125
 Ser Thr Ser Phe Ser Ala Pro Arg Lys Lys Ser Pro Asp Leu Ser Glu
 130 135 140
 Ala Asn Gly Met Met Glu
 145 150

<210> 4745
 <211> 666
 <212> DNA
 <213> Homo sapiens

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 attcagaaaag aactttggcg aattcaggat gtcattggaag ggctgagtaa acataagcag
 180
 caaagaggta ctacagaaat aggtatgata ggatcaaagc ctttctcaac agttaagtac
 240
 aaaaatgagg gtccagatta tagactctac aagagtgaac cagagttaac aacagtggca
 300
 gaagttgatg aatctaattg agaagaaaaa tcagaacctg tttcagagat agaaacttca
 360
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 420

cccgaatctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat
 480
 ctaagaacgg aaagaccaag aagtgcagtg gaacagctct gtttggtga aagtactcga
 540
 ccaaggatga ctgtggaaga gcaaattggaa agaataagaa gatatacaaca agcgtgcctg
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 agggagaaga aaaaagggtt aaatgttatc ggtgcttcag accagtcacc cttacaaagc
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 ccttaa
 666

<210> 4746
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 4746
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 20 25 30
 Ser Ala Gly Ile Gln Arg Ala Gln Ile Gln Lys Glu Leu Trp Arg Ile
 35 40 45
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr
 50 55 60
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr
 65 70 75 80
 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu
 85 90 95
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu
 100 105 110
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro
 115 120 125
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser
 130 135 140
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp
 145 150 155 160
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala
 165 170 175
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile
 180 185 190
 Arg Arg Tyr Gln Gln Ala Cys Leu Arg Glu Lys Lys Lys Gly Leu Asn
 195 200 205
 Val Ile Gly Ala Ser Asp Gln Ser Pro Leu Gln Ser Pro
 210 215 220

<210> 4747
 <211> 1091
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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 720
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 900
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 960
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 1091

<210> 4748

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

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 20 25 30
 Thr Gly Ser Ser Pro Arg Gly Pro Gly Cys Ser Leu Arg His Phe Ala
 35 40 45
 Cys Glu Gln Asn Leu Leu Ser Arg Pro Asp Gly Ser Ala Ser Phe Leu
 50 55 60
 Gln Gly Asp Thr Ser Val Leu Ala Gly Val Tyr Gly Pro Ala Glu Val
 65 70 75 80
 Lys Val Ser Lys Glu Ile Phe Asn Lys Ala Thr Leu Glu Val Ile Leu

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<210> 4749
<211> 2196
<212> DNA
<213> Homo sapiens
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660

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2196

<210> 4750

<211> 276
 <212> PRT
 <213> Homo sapiens

<400> 4750
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 35 40 45
 Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser
 50 55 60
 Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser
 65 70 75 80
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
 85 90 95
 Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn
 100 105 110
 Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp Leu Pro Gly His Glu Ser
 115 120 125
 Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile
 130 135 140
 Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val
 145 150 155 160
 Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn
 165 170 175
 Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala
 180 185 190
 Lys Ser Ala Lys Leu Ile Gln Gln Gln Leu Glu Lys Glu Leu Asn Thr
 195 200 205
 Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser
 210 215 220
 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
 225 230 235 240
 Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly
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 260 265 270
 Ala Lys Ile Ala
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<210> 4751
 <211> 2777
 <212> DNA
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4752

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 <213> Homo sapiens

<400> 4758
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 Leu Ala Ala Gly Asp Val Asp Gly Asp Val Phe Val Phe Ser Tyr Ser
 35 40 45
 Cys Gln Glu Gly Glu Thr Lys Glu Leu Val Ile Arg Ser His Leu Lys
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 Val Ser Lys Asp Lys Ala Ile His Val Leu
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<210> 4759
 <211> 1087
 <212> DNA
 <213> Homo sapiens

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<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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		20						25					30		
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
		35				40						45			
Phe	Leu	Pro	Leu	Trp	Asp	Val	Ala	Ala	Thr	Asp	Phe	Gly	Gln	Thr	Asn
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

<400> 4761

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<210> 4762

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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		20					25					30			
Lys	Gly	Trp	Pro	Pro	Lys	Tyr	Ser	Thr	Trp	Glu	Pro	Glu	Glu	His	Ile
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Arg	Ala	Ser	Gly	Tyr	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Lys	Arg	Leu	Leu
65					70				75					80	
Leu	Gln	Arg	Leu	Tyr	Ser	Met	Asp	Leu	Arg	Ser	Ser	His	Lys	Ala	Lys
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Gly	Lys	Glu	Lys	Leu	Cys	Phe	Ser	Leu	Thr	Cys	Pro	Leu	Gly	Ser	Gly
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Ser	Pro	Glu	Gly	Val	Val	Lys	Ala	Gly	Ala	Pro	Glu	Leu	Val	Asp	Lys
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Ala	His	Lys	Tyr	Leu	Arg	Leu	Ser	Arg	Lys	Lys	Phe	Pro	Pro	Arg	Gly
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Pro	Pro	Trp	Thr	Pro	Ala	Leu	Pro	Ser	Ser	Glu	Val	Thr	Val	Thr	Asp
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Ile	Thr	Ala	Asn	Ser	Ile	Thr	Val	Thr	Phe	Arg	Glu	Ala	Gln	Ala	Ala
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<210> 4763
<211> 2158
<212> DNA
<213> Homo sapiens

<400> 4763
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 <212> PRT
 <213> Homo sapiens

<400> 4764
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 35 40 45
 Lys Gly Pro Leu Cys Lys Ser Val Thr Pro Thr Lys Glu Phe Leu Lys
 50 55 60
 Asp Glu Ile Lys Gln Glu Glu Glu Thr Cys Lys Arg Ile Ser Thr Ile
 65 70 75 80
 Thr Ala Leu Gly His Glu Gly Lys Gln Leu Val Asn Gly Glu Val Ser
 85 90 95
 Asp Glu Arg Val Ala Pro Asn Phe Lys Thr Glu Pro Ile Glu Thr Lys
 100 105 110
 Phe Tyr Glu Thr Lys Glu Glu Ser Tyr Ser Pro Ser Lys Asp Arg Asn
 115 120 125
 Ile Ile Thr Glu Gly Asn Gly Thr Glu Ser Leu Asn Ser Val Ile Thr
 130 135 140
 Ser Met Lys Thr Gly Glu Leu Glu Lys Glu Thr Ala Pro Leu Arg Lys
 145 150 155 160
 Asp Ala Asp Ser Ser Ile Ser Val Leu Glu Ile His Ser Gln Lys Ala
 165 170 175
 Gln Ile Glu Glu Pro Asp Pro Pro Glu Met Glu Thr Ser Leu Asp Ser

180 185 190
 Ser Glu Met Ala Lys Asp Leu Ser Ser Lys Thr Ala Leu Ser Ser Thr
 195 200 205
 Glu Ser Cys Thr Met Lys Gly Glu Glu Lys Ser Pro Lys Thr Lys Lys
 210 215 220
 Asp Lys Arg Pro Pro Ile Leu Glu Cys Leu Glu Lys Leu Glu Lys Ser
 225 230 235 240
 Lys Lys Thr Phe Leu Asp Lys Asp Ala Gln Arg Leu Ser Pro Ile Pro
 245 250 255
 Glu Glu Val Pro Lys Ser Thr Leu Glu Ser Glu Lys Pro Gly Ser Pro
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 Glu Ala Ala Glu Thr Ser Pro Pro Ser Asn Ile Ile Asp His Cys Glu
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 385 390 395 400
 Val Leu Glu Pro Glu Asn Lys Gln Glu Lys Thr Glu Lys Glu Glu Glu
 405 410 415
 Lys Thr Asn Val Gly Arg Thr Leu Arg Arg Ser Pro Arg Ile Ser Arg
 420 425 430
 Pro Thr Ala Lys Val Ala Glu Ile Arg Asp Gln Lys Ala Asp Lys Lys
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 Arg Gly Glu Gly Glu Asp Glu Val Glu Glu Glu Ser Thr Ala Leu Gln
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 Lys Thr Asp Lys Lys Glu Ile Leu Lys Lys Ser Glu Lys Asp Thr Asn
 465 470 475 480
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 Lys Lys Lys Glu Arg Ala Glu Arg Arg Lys Glu Arg Leu Val Tyr Val

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<210> 4765

<211> 1707

<212> DNA

<213> Homo sapiens

<400> 4765

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<210> 4766

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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Pro	Glu	Pro	Arg	Arg	Thr	Glu	His	Arg	Ala	Pro	Ser	Ser	Thr	Trp	Arg
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Pro	Val	Ala	Leu	Thr	Leu	Leu	Thr	Leu	Cys	Leu	Val	Leu	Leu	Ile	Gly
			50				55					60			
Leu	Ala	Ala	Leu	Gly	Leu	Leu	Phe	Phe	Gln	Tyr	Tyr	Gln	Leu	Ser	Asn
			65			70			75					80	
Thr	Gly	Gln	Asp	Thr	Ile	Ser	Gln	Met	Glu	Glu	Arg	Leu	Gly	Asn	Thr
			85					90						95	
Ser	Gln	Glu	Leu	Gln	Ser	Leu	Gln	Val	Gln	Asn	Ile	Lys	Leu	Ala	Gly
			100					105						110	
Ser	Leu	Gln	His	Val	Ala	Glu	Lys	Leu	Cys	Arg	Glu	Leu	Tyr	Asn	Lys
			115				120						125		
Ala	Gly	Ala	His	Arg	Cys	Ser	Pro	Cys	Thr	Glu	Gln	Trp	Lys	Trp	His
			130				135					140			
Gly	Asp	Asn	Cys	Tyr	Gln	Phe	Tyr	Lys	Asp	Ser	Lys	Ser	Trp	Glu	Asp
			145			150				155				160	
Cys	Lys	Tyr	Phe	Cys	Leu	Ser	Glu	Asn	Ser	Thr	Met	Leu	Lys	Ile	Asn
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<400> 4767
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<210> 4768
 <211> 460
 <212> PRT
 <213> Homo sapiens

<400> 4768
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 35 40 45
 Gly Glu Asp Ser Ala Gly Ser Ala Leu Glu Glu Asp Asp Glu Asp Asp
 50 55 60
 Glu Gly Asp Gly Glu Pro Pro Tyr Glu Pro Glu Ser Gly Cys Val Glu
 65 70 75 80
 Ile Pro Gly Leu Ser Glu Glu Glu Asp Pro Ala Pro Ser Arg Lys Ile
 85 90 95
 His Phe Ser Thr Ala Pro Ile Gln Val Phe Ser Thr Tyr Ser Asn Glu
 100 105 110
 Asp Tyr Asp Arg Arg Asn Glu Asp Val Asp Pro Met Ala Ala Ser Ala
 115 120 125
 Glu Tyr Glu Leu Glu Lys Arg Val Glu Arg Leu Glu Leu Phe Pro Val
 130 135 140
 Glu Leu Glu Lys Asp Ser Glu Gly Leu Gly Ile Ser Ile Ile Gly Met
 145 150 155 160
 Gly Ala Gly Ala Asp Met Gly Leu Glu Lys Leu Gly Ile Phe Val Lys
 165 170 175
 Thr Val Thr Glu Gly Gly Ala Ala His Arg Asp Gly Arg Ile Gln Val
 180 185 190
 Asn Asp Leu Leu Val Glu Val Asp Gly Thr Ser Leu Val Gly Val Thr
 195 200 205
 Gln Ser Phe Ala Ala Ser Val Leu Arg Asn Thr Lys Gly Arg Val Arg
 210 215 220
 Phe Met Ile Gly Arg Glu Arg Pro Gly Glu Gln Ser Glu Val Ala Gln
 225 230 235 240
 Leu Ile Gln Gln Thr Leu Glu Gln Glu Arg Trp Gln Arg Glu Met Met
 245 250 255
 Glu Gln Arg Tyr Ala Gln Tyr Gly Glu Asp Asp Glu Glu Thr Gly Glu
 260 265 270
 Tyr Ala Thr Asp Glu Asp Glu Glu Leu Ser Pro Thr Phe Pro Gly Gly

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      275      280      285
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Ser Pro Val Asp Met Glu Pro Glu Lys Leu Val His Lys Phe Lys Glu
 305      310      315      320
Leu Gln Ile Lys His Ala Val Thr Glu Ala Glu Ile Gln Gln Leu Lys
      325      330      335
Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu
      340      345      350
Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu
      355      360      365
Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val
 370      375      380
Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg
 385      390      395      400
Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu
      405      410      415
Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu
      420      425      430
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<210> 4769

<211> 1533

<212> DNA

<213> Homo sapiens

<400> 4769

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300
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480
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720

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 1440
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<210> 4770
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 4770
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 Leu Ser Val Leu Thr Glu Cys Ala Arg Met His Arg Pro Ala Arg Lys
 35 40 45
 Phe Leu Lys Ala Gln Val Leu Pro Pro Leu Arg Asp Val Arg Thr Arg
 50 55 60
 Pro Glu Val Gly Asp Leu Leu Arg Asn Lys Leu Val Arg Leu Met Thr
 65 70 75 80
 His Leu Asp Thr Asp Val Lys Arg Val Ala Ala Glu Phe Leu Phe Val
 85 90 95
 Leu Cys Ser Glu Ser Val Pro Arg Phe Ile Lys Tyr Thr Gly Tyr Gly
 100 105 110
 Asn Ala Ala Gly Leu Leu Ala Ala Arg Gly Leu Met Ala Gly Gly Arg
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<210> 4771
<211> 2653
<212> DNA
<213> Homo sapiens
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1260
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1380
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1680
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1980
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2280
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2460
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2653

<210> 4772
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4772
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 20 25 30
 Ile Lys Gln Arg Asp Lys Arg Leu Glu Trp Glu Met Met Cys Arg Val
 35 40 45
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg
 50 55 60
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His
 65 70 75 80
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
 85 90 95
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
 100 105 110
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
 115 120 125
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro
 130 135 140
 Gly Trp Thr Ile Leu Arg Asp Asp Phe Met Met Gly Ala Ser Met Lys
 145 150 155 160
 Asp Trp Asp Lys Glu Ser Asp Gly Pro Asp Asp Ser Arg Pro Glu Ser
 165 170 175
 Ala Ser Asp Ser Asp Thr
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<210> 4773
 <211> 319
 <212> DNA
 <213> Homo sapiens

<400> 4773
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 180
 cgggcgga tgggtggcg agtacttgcc tggaccagc atcccatctc ctcagctctc
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<210> 4774
 <211> 91
 <212> PRT

<213> Homo sapiens

<400> 4774

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Ala Thr Glu Gly Asp Lys Ile Pro Lys Cys Cys Arg Pro Gln Pro Arg
          20           25           30
Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
          35           40           45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
          50           55           60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
65           70           75           80
Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
          85           90

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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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120
tgggcttaaa catgaaccaa catggcggat gcttcaagca agtggggttg ctgggccccta
180
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300
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433

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<210> 4776

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4776

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Arg Gly Glu Met Lys Arg Leu Ala Ser Ser Ser Pro Thr Asn Ser Leu
          20           25           30
Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
          35           40           45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Thr
          50           55           60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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<212> DNA
<213> Homo sapiens
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 1380
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 1440
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 1740
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 1980
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 2040
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<210> 4778
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 4778
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 Arg Ala Glu Asn Arg Glu Leu Gly Lys Arg Val Gln Ala Leu Gln Glu
 35 40 45
 Glu Ser Arg Tyr Leu Arg Ala Val Leu Ala Asn Glu Thr Gly Leu Ala
 50 55 60
 Arg Leu Leu Ser Arg Leu Ser Gly Val Gly Leu Arg Leu Thr Thr Ser
 65 70 75 80
 Leu Phe Arg Asp Ser Pro Ala Gly Asp His Asp Tyr Ala Leu Pro Val
 85 90 95
 Gly Lys Gln Lys Gln Asp Leu Leu Glu Glu Asp Asp Ser Ala Gly Gly
 100 105 110
 Val Cys Leu His Val Asp Lys Asp Lys Val Ser Val Glu Phe Cys Ser

	115		120		125
Ala	Cys	Ala	Arg	Lys	Ala
		Ser	Ser	Ser	Leu
				Lys	Ile
					Phe
					Phe
					Phe
					Arg
	130		135		140

<210> 4779
 <211> 4467
 <212> DNA
 <213> Homo sapiens

<400> 4779
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<211> 1241

<212> PRT

<213> Homo sapiens

<400> 4780

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Glu Glu Arg Ala Leu Val Phe Asp Val Glu Val Cys Leu Ala Glu Gly
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Lys Ala Arg Arg Gly Pro Ala Ile Ser Ser Trp Asp Trp Leu Asp Ile
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Ser Ser Val Asn Ser Leu Ala Glu Val His Arg Leu Tyr Val Gly Gly
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Pro Pro Leu Glu Lys Glu Pro Arg Glu Leu Phe Val Lys Gly Thr Met
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Lys Asp Ile Arg Glu Asn Phe Gln Asp Leu Met Gln Tyr Cys Ala Gln

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Glu Ala Gln Gly Thr Tyr Glu Glu Leu Gln Arg Glu Met Lys Lys Ser
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          485          490          495
Phe Lys Gln Lys Lys Ala Lys Lys Val Lys Lys Glu Pro Ala Thr Ala
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Gln Glu Asp Leu Gly Pro Cys Ser Glu Glu Glu Glu Phe Gln Gln Asp
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Lys Leu Cys Pro Arg Leu Asp Asp Pro Ala Trp Thr Pro Gly Pro Ser
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Leu Tyr Arg Lys His Cys Leu Glu Gln Gly Lys Gln Gln Leu Met Pro
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Gln Glu Ala Gly Leu Ala Glu Glu Phe Leu Leu Thr Asp Asn Ser Ala
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Leu Thr Ala Arg Gly Gly Pro Lys Asp Thr Gln Pro Ser Tyr His His
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Pro Gly Gly Ala Ser Gly Pro Arg Ala Leu Glu Ile Asn Lys Met Ile
785          790          795          800
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 865 870 875 880
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 His Gly Cys Thr Ala Phe Gly Trp Met Thr Leu Gln Gly Arg Lys Ser
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 930 935 940
 Arg Glu His Ala Lys Ile Phe Asn Tyr Gly Arg Ile Tyr Gly Ala Gly
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 Pro Lys Ser Gln His Arg Met Leu Ala Pro Thr Gly Ala Val Ser Thr
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<211> 212

<212> PRT

<213> Homo sapiens

<400> 4784

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Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg
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<212> DNA
<213> Homo sapiens

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<211> 322

<212> PRT

<213> Homo sapiens

<400> 4786

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Val	Gly	Ala	Asp	Asn	Val	Gly	Ser	Lys	Gln	Met	Gln	Gln	Ile	Arg	Met
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Ser	Leu	Arg	Gly	Lys	Ala	Val	Val	Leu	Met	Gly	Lys	Asn	Thr	Met	Met
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Arg	Lys	Ala	Ile	Arg	Gly	His	Leu	Glu	Asn	Asn	Pro	Ala	Leu	Glu	Lys
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Leu	Leu	Pro	His	Ile	Arg	Gly	Asn	Val	Gly	Phe	Val	Phe	Thr	Lys	Glu
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Asp	Leu	Thr	Glu	Ile	Arg	Asp	Met	Leu	Leu	Ala	Asn	Lys	Val	Pro	Ala
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Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys	Glu	Val	Thr	Val	Pro	Ala
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Gln	Asn	Thr	Gly	Leu	Gly	Pro	Glu	Lys	Thr	Ser	Phe	Phe	Gln	Ala	Leu
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Gly	Ile	Thr	Thr	Lys	Ile	Ser	Arg	Gly	Thr	Ile	Glu	Ile	Leu	Ser	Asp
145				150					155					160	
Val	Gln	Leu	Ile	Lys	Thr	Gly	Asp	Lys	Val	Gly	Ala	Ser	Glu	Ala	Thr
			165					170					175		
Leu	Leu	Asn	Met	Leu	Asn	Ile	Ser	Pro	Phe	Ser	Phe	Gly	Leu	Val	Ile
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<210> 4787
<211> 1258
<212> DNA
<213> Homo sapiens
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<211> 197

<212> PRT

<213> Homo sapiens

<400> 4788

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Pro	Gly	Pro	Ser	Ser	Ser	Ile	Gly	Ser	Pro	Gln	Ala	Ser	Ser	Pro	Pro
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Val	Leu	Val	Asp	Glu	Glu	Ser	Gln	Arg	Glu	Pro	Gly	Ala	Ser	Gly	Ala
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Pro	Gly	Gln	Lys	Lys	Cys	Tyr	Ser	Cys	Pro	Val	Cys	Ser	Arg	Val	Phe
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Glu	Tyr	Met	Ser	Tyr	Leu	Gln	Arg	His	Ser	Ile	Thr	His	Ser	Glu	Val
			100					105					110		
Lys	Pro	Phe	Glu	Cys	Asp	Ile	Cys	Gly	Lys	Ala	Phe	Lys	Arg	Ala	Ser
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His	Leu	Ala	Arg	His	His	Ser	Ile	His	Leu	Ala	Gly	Gly	Arg	Pro	
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His	Gly	Cys	Pro	Leu	Cys	Pro	Arg	Arg	Phe	Arg	Asp	Ala	Gly	Glu	Leu
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Ala	Gln	His	Ser	Arg	Val	His	Ser	Gly	Glu	Arg	Pro	Phe	Gln	Cys	Pro
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<210> 4789

<211> 1515

<212> DNA

<213> Homo sapiens

<400> 4789

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<213> Homo sapiens

<400> 4790

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Thr Phe Glu Leu Phe Leu Thr Ile Ile Asp Gly Pro Ala Asn Tyr Asn
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Val Asp Leu Pro Phe Met Tyr Ser Ile Thr Tyr Ala Ala Phe Ala Ile
      65             70             75             80
Ile Ala Thr Leu Leu Met Leu Asn Leu Leu Ile Ala Met Met Gly Asp
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Trp Phe Leu Arg Val Glu Asp Arg Gln Asp Leu Asn Arg Gln Arg Ile
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Gln Arg Tyr Ala Gln Ala Phe His Thr Arg Gly Ser Glu Asp Leu Asp
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Lys Asp Ser Val Glu Lys Leu Glu Leu Gly Cys Pro Phe Ser Pro His
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      195            200            205
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<211> 4481

<212> DNA

<213> Homo sapiens

<400> 4791

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Gln Ile Tyr		175

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 <212> DNA
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35 40 45
Thr Ser Ser Val Ala Gly Arg Gln Pro Gly Ala Phe Ser Glu Glu Lys
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Gly Pro Val Ile Ile Pro Gln Met Leu Leu Glu Leu Trp Ala Gln Gly
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<210> 4796

<211> 541

<212> PRT

<213> Homo sapiens

<400> 4796

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 20           25           30
Val Glu Gln Ala Leu Val Ala Phe Ile Ser Cys Gly Ser Arg Pro Ser
 35           40           45
Gly Ser Ser Glu Leu Arg Ala Gln Ala Cys Thr Ala His Ser Ala Gly
 50           55           60
Val Pro Gly Leu Ser Ile Pro Thr Ser Ser Trp Leu Pro Leu Met Lys
 65           70           75           80
Gly Pro Pro Glu Val Ala Gln Ser Asn Ile Gln Thr Gln Pro Val Asn
 85           90           95
Arg Glu Met Asp Ala Ala Gly Phe Asp Phe Ser Leu Pro Cys Thr Gln
 100          105          110
Lys Leu Thr Gln Asn Gly Thr Arg Ser Gln Trp Gly Leu Ser Leu Pro
 115          120          125
Ala Leu Met Thr Glu Gly Ser Val Lys His Gly Leu Gly Asp Val Ser
 130          135          140
Ile Leu Lys Lys Thr Phe Ser Thr Arg Leu Gln Asn Ser Asp Trp Phe
 145          150          155          160
Leu Thr Thr Leu Lys Asp Cys Met Thr Leu His Pro Leu Glu Ala Ser
 165          170          175
Pro Pro Gln Asp Lys Gln Pro Ser Ile Met Lys Asp Gln His Cys Met
 180          185          190
Asn Trp Cys Leu Ala Pro Pro Glu Gly Asn Ala Asn Val Ala Phe Ser
 195          200          205
Pro Tyr Gly Phe Leu Ala Trp Gly His Tyr Ile Ser Ala Met Asp Pro
 210          215          220
Cys Thr Leu Leu Pro Leu Ala Gly Pro His Ala Gln Ala Pro Gln Gly
 225          230          235          240
Val Ala Pro Lys Val Thr Thr Arg Gly Leu Gly Pro Ala Gly Ala Ser
 245          250          255
Leu Trp Thr Val Tyr Glu Asp Ser Lys Arg Gln Gly Leu Ser Leu Glu
 260          265          270
Ile Val Gln Gly Leu Gln Gly Gln Ala Gly Pro Glu Ser Ile Ser Pro
 275          280          285
Val Val Thr Val Pro Gln Arg Gly Ile Arg Pro Phe Gly Lys Leu Asp
 290          295          300
Arg Asn Thr Arg Met Ala Ser Leu Asp Cys Lys Ser Leu Glu Trp Gln
 305          310          315          320
Pro Leu Ala Ile Leu Leu Glu Gln Lys Asn Met Ala Ala Asp Gly Pro
 325          330          335
Val Leu Asn Ser Pro Glu Pro Lys Pro Ala Gln Gly Ser Cys Phe Leu
 340          345          350
Leu Gln Arg Val Ala Ser Glu Val Leu Cys Ala Thr Val Pro Ala Arg
 355          360          365
Gly Ile Gln Gly Trp Pro Glu Pro Lys Pro Ser Pro Gly Ser Glu Leu
 370          375          380
Ser Ala Leu Lys Ala His Glu Val Leu Gln Ile Met Leu Gly Leu Pro
 385          390          395          400
Thr Glu Asp Met Leu Val Arg Lys Gln Ala Pro Gln Pro Leu Phe Leu

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405 410 415
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 435 440 445
 Thr Asp Met Ser Pro Tyr Pro Gln Arg Pro Ala Gln Gly Leu Val Trp
 450 455 460
 Ser Arg Ala Asp Pro Thr Thr Val Thr Asp Ser Asp Ala Asp Ile Thr
 465 470 475 480
 Leu Gln Ala Tyr Pro Ser Gly Val Lys Ser Trp Gly Cys Pro Gln Glu
 485 490 495
 Ile Ser Ser Leu Val Trp Leu Thr Lys Ala Met Leu Ala Leu Arg Gly
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<210> 4797

<211> 2848

<212> DNA

<213> Homo sapiens

<400> 4797

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 480
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<210> 4798
 <211> 401
 <212> PRT
 <213> Homo sapiens

<400> 4798
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 35 40 45
 Gly Gly Cys Val Met Thr Ile Gly Glu Met Leu Arg Ser Phe Leu Thr
 50 55 60
 Lys Leu Glu Trp Phe Ser Thr Leu Phe Pro Arg Ile Pro Val Pro Val
 65 70 75 80
 Gln Lys Asn Ile Asp Gln Gln Ile Lys Thr Arg Pro Arg Lys Ile Lys
 85 90 95
 Lys Asp Gly Lys Glu Gly Ala Glu Glu Ile Asp Arg His Val Glu Arg
 100 105 110
 Arg Arg Ser Arg Ser Pro Arg Arg Ser Leu Ser Pro Arg Arg Ser Pro
 115 120 125
 Arg Arg Ser Arg Ser Arg Ser His His Arg Glu Gly His Gly Ser Ser
 130 135 140
 Ser Phe Asp Arg Glu Leu Glu Arg Glu Lys Glu Arg Gln Arg Leu Glu
 145 150 155 160
 Arg Glu Ala Lys Glu Arg Glu Lys Glu Arg Arg Arg Ser Arg Ser Ile
 165 170 175
 Asp Arg Gly Leu Glu Arg Arg Arg Ser Arg Ser Arg Glu Arg His Arg
 180 185 190
 Ser Arg Ser Arg Ser Arg Asp Arg Lys Gly Asp Arg Arg Asp Arg Asp
 195 200 205
 Arg Glu Arg Glu Lys Glu Asn Glu Arg Gly Arg Arg Asp Arg Asp
 210 215 220
 Tyr Asp Lys Glu Arg Gly Asn Glu Arg Glu Lys Glu Arg Glu Arg Ser
 225 230 235 240
 Arg Glu Arg Ser Lys Glu Gln Arg Ser Arg Gly Glu Val Glu Glu Lys
 245 250 255
 Lys His Lys Glu Asp Lys Asp Asp Arg Arg His Arg Asp Asp Lys Arg
 260 265 270
 Asp Ser Lys Lys Glu Lys Lys His Ser Arg Ser Arg Ser Arg Glu Arg

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          275          280          285
Lys His Arg Ser Arg Ser Arg Ser Arg Asn Ala Gly Lys Arg Ser Arg
    290          295          300
Ser Arg Ser Lys Glu Lys Ser Ser Lys His Lys Asn Glu Ser Lys Glu
305          310          315          320
Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
          325          330          335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
          340          345          350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
          355          360          365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
          370          375          380
Ile Glu Gln Glu Ser Gln Glu Lys Gln His Lys Asn Lys Asp Glu Thr
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<210> 4799
 <211> 358
 <212> DNA
 <213> Homo sapiens

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<400> 4799
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240
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358

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<210> 4800
 <211> 119
 <212> PRT
 <213> Homo sapiens

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<400> 4800
Ala Ser Leu Ala Gly Glu Arg Val Ala Leu Asp His Leu Ser Gly Arg
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Ser Gln Asp Pro Leu Ser Val Leu Leu Pro Arg Gly Leu Leu Arg Leu
20          25          30
Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
35          40          45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
50          55          60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
65          70          75          80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

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	85		90		95										
Ala	Gln	Val	His	Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser
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	115														

<210> 4801
 <211> 1447
 <212> DNA
 <213> Homo sapiens

<400> 4801
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 480
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 1320
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 aaaaaaa
 1447

<210> 4802
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 4802
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 Ser Thr Leu Gly Ala Gly Ile Val Ile Ala Glu Ala Leu Gln Asn Gln
 35 40 45
 Leu Ala Trp Leu Glu Asn Val Trp Leu Trp Ile Thr Phe Leu Gly Asp
 50 55 60
 Pro Lys Ile Leu Phe Leu Phe Tyr Phe Pro Ala Ala Tyr Tyr Ala Ser
 65 70 75 80
 Arg Arg Val Gly Ile Ala Val Leu Trp Ile Ser Leu Ile Thr Glu Trp
 85 90 95
 Leu Asn Leu Ile Phe Lys Trp Phe Leu Phe Gly Asp Arg Pro Phe Trp
 100 105 110
 Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro Ala Gln Val His
 115 120 125
 Gln Phe Pro Ser Ser Cys Glu Thr Gly Pro Gly Ser Pro Ser Gly His
 130 135 140
 Cys Met Ile Thr Gly Ala Ala Leu Trp Pro Ile Met Thr Ala Leu Ser
 145 150 155 160
 Ser Gln Val Ala Thr Arg Ala Arg Ser Arg Trp Val Arg Val Met Pro
 165 170 175
 Ser Leu Ala Tyr Cys Thr Phe Leu Leu Ala Val Gly Leu Ser Arg Ile
 180 185 190
 Phe Ile Leu Ala His Phe Pro His Gln Val Leu Ala Gly Leu Ile Thr
 195 200 205
 Gly Ala Val Leu Gly Trp Leu Met Thr Xaa Pro Glu Cys Leu Trp Ser
 210 215 220
 Gly Ser Xaa Ser Phe Tyr Gly Leu Thr Ala Leu Ala Leu Met Leu Gly
 225 230 235 240
 Thr Ser Leu Ile Tyr Trp Thr Leu Phe Thr Leu Gly Leu Asp Leu Ser
 245 250 255
 Trp Ser Ile Ser Leu Ala Phe Lys Trp Cys Glu Arg Pro Glu Trp Ile
 260 265 270
 His Val Asp Ser Arg Pro Phe Ala Ser Leu Ser Arg Asp Ser Gly Ala
 275 280 285
 Ala Leu Gly Leu Gly Ile Ala Leu His Ser Pro Cys Tyr Ala Gln Val
 290 295 300
 Arg Arg Ala Gln Leu Gly Asn Gly Gln Lys Ile Ala Cys Leu Val Leu

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305          310          315          320
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          325          330          335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
          340          345          350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
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Gln Glu Ala Pro Pro Ile His Ser Ser
          370          375

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<210> 4803
 <211> 564
 <212> DNA
 <213> Homo sapiens

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<400> 4803
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360
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564

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<210> 4804
 <211> 53
 <212> PRT
 <213> Homo sapiens

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<400> 4804
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
20          25          30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
35          40          45
Ile Met Ser Tyr Ala
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<210> 4805
 <211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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420
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<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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			20					25					30		
Arg	Ser	Asn	Trp	Lys	Ile	Gln	Ser	Leu	Lys	Asp	Glu	Ile	Thr	Ser	Glu
		35				40						45			
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Phe	Thr	Ala	Ala	Glu	Phe	Glu	Ile	Leu	Lys	Lys	Tyr	Leu	Asp	Thr	Gly
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Gly	Asp	Val	Leu	Val	Met	Leu	Gly	Glu	Gly	Gly	Glu	Ser	Arg	Phe	Asp
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Thr	Asn	Ile	Asn	Phe	Leu	Leu	Glu	Glu	Tyr	Gly	Ile	Met	Val	Asn	Asn
			100					105					110		
Asp	Ala	Val	Val	Arg	Asn	Val	Tyr	His	Lys	Tyr	Phe	His	Pro	Lys	Glu
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Ala	Leu	Val	Ser	Ser	Gly	Val	Leu	Asn	Arg	Glu	Ile	Ser	Arg	Ala	Ala
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Ala	Gln	Ala	Leu	Thr	Phe	Val	Tyr	Pro	Phe	Gly	Ala	Thr	Leu	Ser	Val
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Lys	Leu	Ala	Val	Leu	Gly	Ser	Cys	His	Met	Phe	Ser	Asp	Gln	Tyr	Leu
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Asp	Lys	Glu	Glu	Asn	Ser	Lys	Ile	Met	Asp	Val	Val	Val	Phe	Gln	Trp
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Leu	Thr	Thr	Gly	Asp	Ile	His	Leu	Asn	Gln	Ile	Asp	Ala	Glu	Asp	Pro
			245					250					255		
Glu	Ile	Ser	Asp	Tyr	Met	Met	Leu	Pro	Tyr	Thr	Ala	Thr	Leu	Ser	Lys
		260						265					270		
Arg	Asn	Arg	Glu	Cys	Leu	Gln	Glu	Ser	Asp	Glu	Ile	Pro	Arg	Asp	Phe
	275					280						285			
Thr	Thr	Leu	Phe	Asp	Leu	Ser	Ile	Phe	Gln	Leu	Asp	Thr	Thr	Ser	Phe
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His	Ser	Val	Ile	Glu	Ala	His	Glu	Gln	Leu	Asn	Val	Lys	His	Glu	Pro
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Leu	Gln	Leu	Ile	Gln	Pro	Gln	Phe	Glu	Thr	Pro	Leu	Pro	Thr	Leu	Gln
				325				330					335		
Pro	Ala	Val	Phe	Pro	Pro	Ser	Phe	Arg	Glu	Leu	Pro	Pro	Pro	Pro	Leu

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 Glu Leu Phe Asp Leu Asp Glu Thr Phe Ser Ser Glu Lys Ala Arg Leu
 355 360 365
 Ala Gln Ile Thr Asn Lys Cys Thr Glu Glu Asp Leu Glu Phe Tyr Val
 370 375 380
 Arg Lys Cys Gly Asp Ile Leu Gly Val Thr Ser Lys Leu Pro Lys Asp
 385 390 395 400
 Gln Gln Asp Ala Lys His Ile Leu Glu His Val Phe Phe Gln Val Val
 405 410 415
 Glu Phe Lys Lys Leu Asn Gln Glu His Asp Ile Asp Thr Ser Glu Thr
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 Ala Phe Gln Asn Asn Phe
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<210> 4807

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 4807

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<210> 4808
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 4808
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 35 40 45
 Gln Glu Ala Gln Ser Leu Gly Gly Gln Cys Val Pro Val Val Cys Asp
 50 55 60
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 65 70 75 80
 Glu Gln Gln Gly Arg Leu Asp Val Leu Val Asn Asn Ala Tyr Ala Gly
 85 90 95
 Val Gln Thr Ile Leu Asn Thr Arg Asn Lys Ala Phe Trp Glu Thr Pro
 100 105 110
 Ala Ser Met Trp Asp Asp Ile Asn Asn Val Gly Leu Arg Gly His Tyr
 115 120 125
 Phe Cys Ser Val Tyr Gly Ala Arg Leu Met Val Pro Ala Gly Gln Gly
 130 135 140
 Leu Ile Val Val Ile Ser Ser Pro Gly Ser Leu Gln Tyr Met Phe Asn
 145 150 155 160
 Val Pro Tyr Gly Val Gly Lys Ala Ala Cys Asp Lys Leu Ala Ala Asp
 165 170 175
 Cys Ala His Glu Leu Arg Arg His Gly Val Ser Cys Val Ser Leu Trp
 180 185 190
 Pro Gly Ile Val Gln Thr Glu Leu Leu Lys Glu His Met Ala Lys Glu
 195 200 205
 Glu Val Leu Gln Asp Pro Val Leu Lys Gln Phe Lys Ser Ala Phe Ser
 210 215 220
 Ser Ala Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala
 225 230 235 240
 Thr Asp Pro Asn Ile Leu Ser Leu Ser Gly Lys Val Leu Pro Ser Cys
 245 250 255
 Asp Leu Ala Arg Arg Tyr Gly Leu Arg Asp Val Asp Gly Arg Pro Val
 260 265 270
 Gln Asp Tyr Leu Ser Leu Ser Ser Val Leu Ser His Val Ser Gly Leu
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<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

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<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 20 25 30
 Ser Gln Pro Gly Cys His Ser Gly Leu Leu Thr Asn Thr Pro Ala Ala
 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

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      50              55              60
Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met
65              70              75              80
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln
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Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro
      100              105              110
Leu Pro Ser Gly Gln Pro Cys Pro
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<210> 4811
 <211> 3207
 <212> DNA
 <213> Homo sapiens

<400> 4811
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<210> 4812

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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 35 40 45
 Ser Ala Leu Gly Leu Arg Leu Gly Asp Arg Val Leu Leu Asp Gly Gln
 50 55 60
 Lys Thr Gly Thr Leu Arg Phe Cys Gly Thr Thr Glu Phe Ala Ser Gly
 65 70 75 80
 Ser Trp Val Gly Val Glu Leu Asp Glu Pro Glu Gly Lys Asn Asp Gly
 85 90 95
 Ser Val Gly Gly Val Arg Tyr Phe Ile Cys Pro Pro Lys Gln Gly Leu
 100 105 110
 Phe Ala Ser Val Ser Lys Ile Ser Lys Ala Val Asp Ala Pro Pro Ser
 115 120 125
 Ser Val Thr Ser Thr Pro Gly Pro Pro Arg Met Asp Phe Ser Arg Val
 130 135 140
 Thr Gly Lys Gly Arg Arg Glu His Lys Gly Lys Lys Lys Thr Pro Ser
 145 150 155 160
 Ser Pro Ser Leu Gly Ser Leu Gln Gln Arg Asp Gly Ala Lys Ala Glu
 165 170 175
 Val Gly Asp Gln Val Leu Val Ala Gly Gln Lys Gln Gly Ile Val Arg
 180 185 190
 Phe Tyr Gly Lys Thr Asp Phe Ala Pro Gly Tyr Trp Tyr Gly Ile Glu
 195 200 205
 Leu Asp Gln Pro Thr Gly Lys His Asp Gly Ser Val Phe Gly Val Arg
 210 215 220
 Tyr Phe Thr Cys Pro Pro Arg His Gly Val Phe Ala Pro Ala Ser Arg
 225 230 235 240
 Ile Gln Arg Ile Gly Gly Ser Thr Asp Ser Pro Gly Asp Ser Val Gly

245 250 255
 Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
 260 265 270
 Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
 275 280 285
 Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
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 Gln Ser
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<210> 4813
 <211> 400
 <212> DNA
 <213> Homo sapiens

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<210> 4814
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4814
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 35 40 45
 Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
 50 55 60
 Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
 65 70 75 80
 Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
 85 90 95
 Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
 100 105 110
 Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
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<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 4815
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<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
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 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
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 Gln Pro Ser Tyr Arg Ser Ala Leu Met
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<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

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<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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	20						25					30			
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
	35					40					45				
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
	50				55					60					
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
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<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
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Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
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Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
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Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
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Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
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Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
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His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
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Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
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Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
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Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
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<212> DNA

<213> Homo sapiens

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 Ala Leu Gln Gln Lys Arg Glu Thr Leu Ser Pro Leu Cys Leu Ile Pro
 65 70 75 80
 Met Val Thr Ser Pro Arg Glu Glu Gln Gln Leu Leu Ala Ser Thr Ser
 85 90 95
 Lys Pro Val Val Lys Leu Leu His Asn Arg Ser Asn Asn Lys Tyr Ser
 100 105 110
 Tyr Thr Ser Thr Ser Asp Asp Asn Leu Leu Lys Asn Ile Glu Leu Phe
 115 120 125
 Asp Lys Leu Ala Leu Arg Phe His Gly Arg Leu Leu Phe Leu Lys Asp
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 Val Leu Gly Asp Glu Ile Cys Cys Trp Ser Phe Tyr Gly Gln Gly Arg
 145 150 155 160
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